```
Result
                                                                                                                                                                                                                                                                                                                                                                                                      Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
   oα
                            0 0 0
                                                                                                                               a a
                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic -
                                                                                   იიი
                                                                                                                                                                                      ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
   Pred. No. score grea and is der
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB DB
                                                                                                                     653.8
653.8
73.4
71.8
71.6
                                                                                                                                                                                     Score
                    67.8
67.4
67.2
67.2
66.8
66.6
66.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq
eq
                                                                                                    70
68
                                                                                                                                                                                                                                  No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                          length: 0 length: 2000000000
                                                                                                                                                                                    Query
Match Length
                                                                                                                                                                                                                                                                       8:
9:
10:
11:
12:
13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  November 17, 2005, 13:48:02; Search time 3265 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-810-788A-4
   GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aagcttttaaatttgggaaa.....tctgtggtcacttgaatacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                     gb_om:*
gb_pat:*
                                                                                                                                                                                                                                                                                                                                                                       gb_ba:*
gb_htg:*
gb_in:*
                                                                                                                                                                                                                                                                     gb_ro:*
gb_sts:*
gb_un:*
gb_vi:*
                   156550
281723
14856
174741
225328
125529
125623
148394
196762
253755
                                                                                                                                                 84203
103223
177522
                                                                                                                              174080
186175
                                                                                                                       246589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version
(c) 1993 - 2005
                                                                                                                                                                                      88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapext 1.0
AC015830
PAS293159
AY527817
AC040977
CR847881
AC115599
CR753384
CR75978
CR812465
CR3385039
AE014828
                                                                                                                      AC005106
AC007153
AC093566
AF217246
CR318664
CR450749
                                                                                                                                                                                     ij
                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mode1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10462.765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.1.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         alignments)
Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9416466
AC005106 Genomic s
AC003166 Homo sapi
AC093566 Homo sapi
AF217246 Homo sapi
AF217246 Homo sapi
AF217279 Danio rer
CR450749 Danio rer
AC015830 Homo sapi
AL929359 Plasmodiu
AY527817 Homo sapi
AC040977 Homo sapi
AC040977 Homo sapi
CR847887 Danio rer
CR847881 Danio rer
CR753884 Danio rer
CR753840 Danio rer
CR312465 Danio rer
CR312465 Danio rer
CR312465 Danio rer
CR312365 Danio rer
CR312365 Danio rer
                                                                                                                                                                                     Description
```

	O			O	O		ი		ი	ი	a	ი				o	ი			ი	ი	ი	Ω	
n d	43	42	41	40		38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
62.6		62.6			62.8	63	63	63	63.2	63.4	•	63.8	63.8	64	64	64.2	64.2	64.4	64.8	65	5	65.4	<u>ب</u>	65.6
		9	6	6	6	w	6	6	9.0 253151			9.0 333321		Ի	.1 1		<u>.</u>	.1 18364	N	N	'n	٠ س		9.3 273275
N	ມເມ	6	w	N	w	ω	W	N	ω	σ	w	w	N	ហ	N	2	ი	w	N	N	9	N	Ν	ω
CR812470	AC117080 DEMAI 3 D4	AX599046	AF483206	CR388030	AE014824	AC116960	AC117076	PFMAL13 24	AE014842	AX187051	AE014821	AC116986	CR753871	BX530036	BX957320	CR759746	AX599046	AC117081	CR847943	CR387989	AC147112	CR407555	AC146461	AE014828
	AC117080 Dictyoste		AF483206 Planococc	CR388030 Danio rer	AE014824 Plasmodiu	AC116960 Dictyoste	AC117076 Dictyoste	Continuation (25 o	AE014842 Plasmodiu	AX187051 Sequence	AE014821 Plasmodiu		CR753871 Danio rer	BX530036 Zebrafish	BX957320 Danio rer	CR759746 Danio rer	AX599046 Sequence	AC117081 Dictyoste	CR847943 Danio rer	CR387989 Danio rer	AC147112 Pan trogl	CR407555 Danio rer	AC146461 Pan trogl	AE014828 Plasmodiu

ALIGNMENTS

JOURNAL REFERENCE REFERENCE AUTHORS VERSION KEYWORDS SOURCE RESULT 1 AC005106 REFERENCE REFERENCE ACCESSION DEFINITION FOCUS AUTHORS TITLE JOURNAL AUTHORS TITLE TITLE JOURNAL TITLE ORGANISM JOURNAL AUTHORS Ecker,J.R.

Direct Submission

Submitted (01-DEC-1998) Arabidopsis thaliana Genome Cent
Submittent of Biology, University of Pennsylvania, 38th
Department of Biology, University of Pennsylvania, 38th
Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, US Submitted (31-JUL-1998) Arabidopsis thaliana Genome Center, Department of Biology, University of Pennsylvania, 38th Street Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA Submitted (16-JUN-1998) Arabidopsis thaliana Genome Center, Department of Biology, University of Pennsylvania, 38th Str Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA 3 (Dases 1 to 84203) Johnson-Hopson, C., Brooks, S., Buehler, E., Chao, Q., Khan, S., Kim, C. Shinn, P., Altafi, H., Bei, Q., Chin, C., Chiou, J., Choi, E., Conn, L., Conway, A., Gonzales, A., Hansen, N., Howing, B., Koo, T., Lam, B., Lio, J., Liu, A., Liu, S., Liu, S., Mukharsky, N., Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A., Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Federspiel, N.A., Theologis, A. and Ecker, J.R. Arabidopsis italiana
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis. AC005106 AC005106.2 GI:6587719 HTG. Direct Submission Ecker, J.R. Direct Submission Ecker, J.R. chromosome I Genomic sequence for Arabidopsis thaliana BAC T25N20 from Arabidopsis thaliana (thale cress) chromosome I, AC005106 84203 bp DNA linear PLN 28 Genomic sequence for Arabidopsis thaliana BAC T25N20 from Unpublished (bases 1 to 84203) (bases 1 to 84203) (bases 1 to 84203) complete sequence. Chao, Q., Khan, S., Kim, C., PLN 28-JUN-2000 Center, Street Street and and

```
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5 (bases Shinn, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cheuk, R., Shinn, P., Brooks, S., Buehler, E., Chao, Q.,
Unbonson-Hopson, C., Khan, S., Kim, C., Altafi, H., Bei, B., Chin, C.,
Uohnson-Hopson, C., Khan, S., Kim, C., Altafi, H., Bei, B., Chin, C.,
Chiou, J., Choi, E., Conn, L., Conway, A., Gonzalez, A., Hansen, N.,
Howing, B., Koo, T., Lam, B., Lee, J., Lenz, C., Li, J., Liu, A.,
Howing, B., Koo, T., Lam, B., Lee, J., Lenz, C., Li, J., Liu, A.,
Liu, S., Mukharsky, N., Nguyen, M., Palm, C., Pham, P., Sakano, H.,
Schwartz, J., Southwick, A., Thaveri, A., Toriumi, M., Vaysberg, M.,
Yu, G., Davis, R., Federspiel, N., Theologis, A. and Ecker, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (10-JUN-2000) Arabidopsis thaliana Genome Center,
Department of Biology, University of Pennsylvania, 38th Street
Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA
7 (bases 1 to 84203)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shinn, P., Brooks, S., Buehler, E., Chao, Q., Johnson-Hopson, C., Khan, S., Kim, C., Altafi, H., Bei, B., Chin, C., Chiou, J., Choi, E., Conn, L., Conway, A., Gonzalez, A., Hansen, N., Howing, B., Koo, T., Lam, B., Lee, J., Lenz, C., Li, J., Liu, A., Liu, J., Liu, S., Mukharsky, N., Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A., Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Davis, R., Prederspiel, N., Theologis, A. and Ecker, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission

Submitted (16-DEC-1999) Arabidopsis thaliana Genome Center, Department of Biology, University of Pennsylvania, 38th and Hamilton Walk, Philadelphia, PA 19104-6018, USA 6 (bases 1 to 84203)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (28-JUN-2000) Arabidopsis thaliana Genome Center, Department of Biology, University of Pennsylvania, 38th and Hamilton Walk, Philadelphia, PA 19104-6018, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ecker, J.R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 84203)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16,
                                                                                                                                           Join(9304. .11268,11387. .11513,11607. .1:
12698. .12784,13257. .13356,13451. .14263)
/note="unknown protein; similar to ESTs gb
gb]AI998699.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement(join(1491. .2159,2389. .2452,2568. .2697,
3061. .3118,3369. .3457,4022. .4139,4246. .4353))
/note="similar to YUP8H12.1 gb|AAB71441.1; similar to
gb|A1996871.1"
                                                                                                                                                                                                                                                                                                                                   /translation="MGKKEQKDHHSVVESDDKVEAVLHLLRKHSPLTLKQEKFCNRAC VGRFILA I KGINVKKAAKQLRGKIGHSULADEFTAELAEGLAYVAGLDDECR VURFILA I KGINVKKAAKQLRGCLAYWAGLLOTL I LLASFSLUHLLLCNSTAHLEFFFFF PI YKINPKLLQIS I SPHEHTCDYTQNSRRGI RTFVDLSTATMI VSMQDFQDSFDYDDF SSSYFSRVSSLRFDTSSLKSTDKIGSCASSRFAFTVSRDGLDTVKPWCLTLTDTSSTK LGHNTGAYI SPLNARSFSFASPAARSEPFGGFRRSFFFASTPMPARTTDRHSIGTLRDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="T25N20.2"
/protein_id="AAF79741.1"
/db_xref="GI:8778733"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NTSIKFAYNNKCYIIM"
                                                                                                                                                                                                                                                                                                            RTPRPSFFQSPATFFRRESHVSKSEKPRDSFVQFLKFYRRPYDEMTYRSKMRPPLGGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /protein_id="AAF79720.1"
/db_xref="GI:8778712"
/translation="MPNPSYVISLQKCDFCINLEAMATIAPRHITHFHAIHKIFPTKI
                                                            /product="T25N20.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product="T25N20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /evidence=not_experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Arabidopsis thaliana"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , 1999 this sequence version replaced
Location/Qualifiers
/protein_id="AAF79721.1"
/db_xref="GI:8778713"
                                                                                               evidence=not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone="T25N20"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                           codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           xref="taxon:3702"
                                                                                           _experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gi:3366536.
                                                                                                                                                                                                                                                .11692,12103.
                                                                                                                                                                                    gb|AW560017.1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                    and
```

```
MPRIDALI YERPESKRAQRREMVVVKEP FRKSINVDINISESESISMSKRKSEKKESTS
KPKKEENTKSKSTFEELVNEDVREERRGRRGGGTENKORLERERI IGMLTDAGWTLDYKE
RRNOST LIANYDAVENTERREGRAGGTENKORLERERI IGMLTDAGWTLDYKE
RRNOST LIANYDAVENTERREGRAGGTENKORLERERI IGMLTDAGWTLDYKE
RRNOST LIANYDAVENTERREMTKKWKONSGSDSENKSEGGAYTDTSEER IRSSI KLJGGKSTKKGR
NGADWDELHKKSKRSLYYNNARPSGGSDSENKSEGGAYTDTSEER IRSSI KLJGGKSTKKGR
NGADWDELHKKSKRSLYYNNARPSGGSDSENKLJGGKTKLJGRCTLLVRSSKDKKREAI
NGFNEYSGKRTLLSWLI ESGVVQLRQKVOYMRRRGAKVMLEGWI TREGIHCDCCSKIL
TVSRFEI HAGSKSCOPEQNI YLLESGASLLQCOVRAWNWOKDATNLALHQVUTDGDDEN
DDAGGI CGDGGDLI CCDGCPSTYHQNCLGMQVLPSGDWHCPNCTCKFCDAAVASGGKD
GNFI SLLS CGMCERRYHQLCLNDEAHKVOSFGSASSFCGFKCLELFELVKYLGVKTE
I EGGTSWSLLHRVDTDSDTNSQMSAQRI ENNSLLAVGLAI MDECCTLE TVDRRSGVDLI
RNULYNCGSNENER INYTGFYTAI LERGDE I SAASLREHGMQLAEMFFIGTRH I KRO
GMCRRLFDAI ESAMRSLKVEKLVI PA I PDFIHAWTGNEFGFTELDSVRKEMRSLNTLV
FPGIIDNLQKFULHERNI I APAAAGDAMI SEVETEKKSETSSVEI GPYAVEGDEFVAD
AANCYKDI LASDEDNI LVSVETAMGTI CKFKDELSRIFRESSSSFSSPCQI TLKSGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /translation="MDPPPTKEFALAPVYVYWDMKRCPVPDDYDARRVGPCIKRILRK SGYNGPVTITAVGSLSKVPRDILEVVSSTGISLYHEVATTLMFISRPPLWIPPGFYSN ILIQREKKYNSIFPFPLESPPREASSTLWKNFLLADPGPLEEEEDSCSETPGPASWICS VCRRICGPGIAGGVDNFITHLSTREHELKRQRFTNPKGEPPLDSCPENATRGGNQS" Complement (join(17577. .18026,18231. .18796,18981. .19410))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /trānslation="MGFLVA/WNFSFTLVHHHMKSFQCQNEKLRQGQTSSLFDBRGF
LKCVVGASSFWATIEFSGLQAQASEEKLDEGEGVVGAFKTLFDBRGKTVAGEESYVEL
LKSAREVVKTMRESLKENFKUNAKFRRSADAAKESIRDYLSNWRGQKTVAGEESYVEL
ENVIRALAKFYSKAGPSAPLPDEVKTEILDDLNKAEEFL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KHVLGHICDDTGSSCEDGLTDVNVEADASLLSQEIQQASASFKVENNLSLSISGRGSS
DLSSISQEVKSEQTSSNLDGVPSCKDYNILVPGAKLDKSKDDAFADGFLL"
Complement (join 114820. . .14957, 15038. . .15420, 15643. . .15721))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /translation="MEGGGSGERSRIASNTPRSLKEKSDGVGRTVSSTETRONYOKR SRMVVSDSESSDEFMKPPRRSGVDRKTLGAKEKFVRKADRVEHDRNGYVRRNDEASG SFMKVNKLDLFEFDEXUGFDSALMRKRFDNGSVGVGRASSFASRRVDSSVGRSGSGSE EGLFDRRRNTFVNGTCSASSQEDSSSESDSDEPMRVQGINGVLKVKVNNKTNTLAASI
                                                                                                                            ISLEHGGYSYIKCEAVVSEGHICGHVAHMNCALRAYLAGTIGGSMGLDTEYYCRRCDA
KKDLFPYNKFLEICQTVEYQGDVEKILNLGICIKEQAQRDNAKELLNCIESTVKI
FILVVDYSDSGEARRNDTLQSLQDVFPIGFIFPOHBAEMHKLEEEIGGVVLRALRKAQE
FEYQIAEGKLHAQKECLSDLYRQLEKEKSELSRRVSGTDANSLMTNVLKRLDQIRKEV
                                                                                                                                                                                                                                                                                                          /translation="mflhvvlleaasigfvlecrsynmdsmdidosnigesphillre
vsplesgeglpyapemwnnegotmhmkybprisgkyrvdkylpykytapetmynkytokpryspkylpytsste
knkyfrskilglokylfwhfebadvokrfassewsipcrogotupokoyotypvtysob
Dpmrddgsdtavckagnekcrsimpoceaetipampcdiccgerkfcvdcccilcckl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /evidence=not_experimental
/product="T25N20.6"
/protein_id="AAF79739.1"
/db_xref="GI:8778731"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (15845. .15918)
                                                                                  TKLKEMEEVAKGFGRTPRGVLEEYFHLNIED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /protein_id="AAF79722.1"
/db_xref="GI:8778714"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /evidence=not_experimental
/product="T25N20.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /evidence=not_experimental
join(16415. .16661,16811.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /protein_id="AAF79740.1"
/db_xref="GI:8778732"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /evidence=not_experimental
/product="T25N20.4"
note="unknown protein; similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             codon_start=1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="codon recognized: AAC; putative tRNA-Asn"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="tRNA-Asn"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                codon_start≈1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .17133,17234. .17317)
    EST emb | Z34709.1"
```

ERNA

CDS

/trānslation="MLNTYSLTLFLTKTKTMPRVMWKNFHLCFPSNLTKPSSSPSGAT SDDPNRPSILLINNFNLLYDDSSAAHRRLSKFLIHDVSPSSTFTAATSTAATSTAANSSSSA SDDPNRPSADDDSSPPDLTAVLASRRFFFSSPGCSNSITDSPDLACTDNVTDTAT SYDDSDNYCFSAPDDDSSPPDLTAVLASRRFFFSSPGCSNSITDSPDLACTDNVTDTAT LLTGGTAVKHYVQSPDPYNDFRRSMQEMIDAVTNAGDLRRYEFLHELLLSYLSLNAAD

/evidence=not_experimental /product="T25N20.7" /protein_id="AAF79723.1" /db_xref="GI:8778715"

codon_start=1

Sg

S

```
RESULT 2
AC007153
                                 LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699;
     AC007153
Arabidopsis thaliana
complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAGAGTTTTTTAAATTTTTTATTATATAAATAA-TTTTTTTGCATGAAATTGTTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTTTTAAATTTGGGAAAATTTAATAATATGTATTAAATGGACAAATAAAAGTTAG
                                                                                                                                                                                                                              CATCAAAACATAITTGGCGTTATTATTTCTGTGGTCACTTGAATA 703
                                                                                                                                                                                                                                                                                                   TTGCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCTAGTT
                                                                                                                                                                                                                                                                                                                                        TTGCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                             CTTATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAAGAGTACTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTTTTAGTACTTGTTTTTTCTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTTGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGTCTTTAAACCTCGTAAAGTTTTTGGTCTTACCCCAACCCAATACCCACAAAAGGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATAAAATTTTGACATAACCAAATATTATTTTCCGCCACGAATTGAGTCTACGAGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGG-CAAATAAAAGTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tranelation="mamaalnqlfvvllaskpeqekitpeesraivschfkalwtagfa
sgvgggltwqvtkklkkpkglervalaagnylhifvydhsfrlsekccvfffsftstq
elllrlllllgigqvpnmqfhflislvkmlhecrksflvrsnrgeawrwqlmskhfy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gb|N96012.1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /evidence=not_experimental
/product="T25N20.8"
/protein_id="AAF79738.1"
/db_xref="GI:8778730"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PESVYGDEGDKPQMRWRRRTTFTEIASSYDDVNATKSQRNPNGLPNPSHRRISGGSDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          THKFIIRAFADILVSLLSDGHRIS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92.7%;
                                 103223 bp
chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 653.8; DB Pred. No. 7e-94;
                                                       103223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                      н
                                 BAC I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB
                                    F3F20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8; Length 84203;
                              linear
O genomic
                                                          PLN 30-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.
                                                                                                                                                                                                                                                                                                                                                        658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         70774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                   misc_teature
                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
On Apr 9, 1999 this sequence version replaced gi:4508084.
Bases 1-33654 of clone of clone F3F20 overlap with bases
50550-84203 of 'TAMU' clone T25X20, gb|AC005106.
e-mail for correspondence: arab@sequence.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                  Genes with similarity to proteins in the databases are described as 'putative', '-like' or 'similar to'. Genes that have EST similarity but no significant protein similarity are described as 'unknown proteins'. Genes that are annotated based only on gene prediction software are described as 'hypothetical proteins'. The software programs used to predict genes include: Grail (Informatics Group, Oak Ridge National Laboratory, http://compbio.ornl.gov/section/index.html), GENSCAN (Chris Burge, http://gnomic.stanford.edu/~chris/GENSCANW.html), Fexa (V.Solovyev
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (17-MAY-1999) DNA Sequencing and Technology Center,
Submitted University, 855 California Avenue, Palo Alto, CA 94304,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
Submitted (08-APR-1999) DNA Sequencing and Technology Center,
Submitted University, 855 California Avenue, Palo Alto, CA 94304,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Federspiel N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F., Altafi, H., Araujo, R., Huizar, L., Rowley, D., Buehler, E., Dunn, P., Gonzalez, A., Kremenetskaia, I., Kim, C., Lenz, C., Li, J., Liu, S., Luros, S., Schwartz, J., Shinn, P., Toriumi, M., Vyotskaia, V., Walker, M., Yu, G., Ecker, J., Theologis, A. and Davis, R.W. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F., Altafi, H., Araujo, R., Huizar, L., Rowley, D., Buehler, E., Dunn, P., Gonzalez, A., Kremenetskaia, I., Kim, C., Lenz, C., Li, J., Liu, S., Luros, S., Schwartz, J., Shinn, P., Toriumi, M., Vyotskaia, V., Walker, M., Yu, G., Ecker, J., Theologis, A. and Davis, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F., Altafi, H., Araujo, R., Huizar, L., Rowley, D., Buehler, E., Dunn, P. Gonzalez, A., Kremenetskaia, I., Kim, C., Lenz, C., Li, J., Liu, S., Luros, S., Schwartz, J., Shinn, P., Toriumi, M., Vyotskaia, V., Walker, M., Yu, G., Ecker, J., Theologis, A. and Davis, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stanford University,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (24-MAR-1999) DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, CA 94304,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                            & A.Salamov, Sanger Centre, http://genomic.sanger.ac.uk/), and NetPlantGene (S.M. Hebsgaard, et al., CBS, Technical University of Denmark,http://www.cbs.dtu.dk/NetPlantGene.html).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Altafi,H., Araujo,R., Huizar,L., Rowley,D., Buehler,E., Dunn, Gonzalez,A., Kremenetskaia,I., Kim,C., Lenz,C., Li,J., Liu,S., Luros,S., Schwartz,J., Shinn,P., Toriumi,M., Vysotkkaia,V.S., Walker,M., Yu,G., Ecker,J., Theologis,A. and Davis,R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Federspiel, N.A., Palm, C.J., Conway, A.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC007153
AC007153.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 103223)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 103223)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 103223)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 103223)
/note="overlap with bases 50550-84203 of 'TAMU' (T25N20, gb|AC005106 Features from bases 1 to 29, annotated on overlapping clone T25N20, gb|AC00510
                                                                                                                                                                                             organism="Arabidopsis thaliana"
/mol_type="genomic DNA"
/cultivar="Columbia"
                                                                                                            /clone="F3F20"
                                                                                                                                        /db_xref="taxon:3702"
/chromosome="I"
                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                        .33654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:4580365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (thale
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cress)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conn, L.,
           gb | AC005106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hansen, N.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dunn, P.,
```

δ

밁

as

δ 밁

밁 ð 8 밁 В Ó В ð 밁 á В Ś 밁 ð 밁

```
gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FLKVLSVEITAAL IKLAQAVLDI ALSWKARHSMSIYVKLRYVMKADAAAWVVVMAVT
YAYSWKNASGPSQTIKWMFGGHSHNSPSLFIVALLIYLSPMMLSALLFLFPFIRRYLE
RSDYKIMMLMMWGQFSYFPSSMQIKPLVGFTKDIMRIHISVYSWHEEFPHAKNNLGV
VIALMSPVILVYFMDTQIWYALVSTLVGGLNGAPRRLGEITTLGHLRSRFQSIFQAFN
DCLVPQDNSDDTKKKRFRATFSRKFDQLPSSKOKEAARFAQMWNKIISSFREEDLISD
REMELLLVPYWSDPDLDLIRWPPFLLASKIPIALDMAKDSNGKDRELKKRLAVDSYMT
CAVRECYASFKNILIYLLVGERRGQVINDIFSKIDEHIEKETLITELNISALPDLYGQ
FVRLIEYLLERREEDKDQIVIVLLNMLELVTRDIMEBSVPSANISVNFDSQFILKRK
GKKKQIKRLHLLLTVKESAMDVPSNLEARRLIFFSNSLFMDMPPAFKIRNMLSFSVL
TPYSSBDVLFSIFGLEQQNEDGVSILFYLQKIFPDAWTMFLERVKGQNEEELRAREDL
EEELRLWASYRGQTLTKTVRGMMYYRKALELQAFLDMAKDELLKGYKALELTSEEAS
KSGGSLWAQCQALADMKFTFVVSCQQYSIHKRSGDQRAKDILRLMTTYSSIRVIDE
VEQTHKESYKCTEEKIYYSALVKAAPGYKEMDSSESVQTLDQLIYRIKLFPSALIGEG
KPENQNHAIIFTRGEGLQTIDMNQDNYMEEAFKMRNLLGEFLEKHGVRCPTILGLRE
HIFTGSVSSLAWFMSNEOMSFYTIGQRVLASPLKVRFHYGHDDIFDLYRLGHTREFRNT
LREGNVTHHEYIQVGKGRDVGLNGISMFEAKIANGEQTLSRDLYRLGHFFDFFRML
SCYFTTIGFYFSTMLTVLTVYVELYGRLYLVLSGLEEGLSSQRAFRNNKELEAALASQ
SFVQJGFLMALPMMSEJGLERGFNALLEFLAKGLOLLSCHALASCALSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene=F3F20.1"

/gene=F3F20.1"

complement(join(29404...29652,29751...29936,30023...30073,30150...30950,31055...31284,31428...31486,31568...31651,30150...30950,31055...31284,31428...31486,31568...32695,31740...31858,31981...32100,32252...32411,32506...32508,32780...32848,32961...33086,33172...33281,33357...33508,33634...33700,33851...33948,34038...3411,34243...34403,34491...34575...35441...35543...35880,33566...35892,35475...35447...35441...35543...35880,33566...35892,35975...36024,36112...36220,36644...36991,37155...37272,373544...37473,37725...37818,37915...37991,38079...38204,38319...38453,38591...37818,37915...37991,38079...38204,39165...39245,39382...39505,39608...39729,39823...39923,40015...40201)
                                                                                                                                                                                                                                                                                                                /protein_id="AAD30611.1"
/db_xref="G1:4836909"
/db_xref="G1:4836909"
/tanslation="MESNGGGEVRRVNLVYFLSRSGHVDHPHLLRVHHLSRNGVFLR
DVKKWLADARGDAMPDAFSWSCKRRYKNGYVWQDLLDDDLITPISDNEYVLKGSEILL
SSPKEDYPNVEKKAWVTRNGGIDAEEKLQKLKLTSEKIQKESPVFCSQRSTATTSTVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WMEKELEHLAHSGYRGITLEIFLALRFFIFQYGLVYHLSTFKGKNQSFWYYGASWFVI
LFILLIVKGLGYGRRRFSTNFQLLFRIIKGLVFLTFVAILITFLALPLITIKDLFICM
LAFMFTGWGMLLIAQACKPLIQQLGIWSSVRTLARGYEIVMGLLLFTPVAFLAWFPFV
SEFQTRMLFNQAFSRGLQISRILGGQRKDRSSKNKE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="F3F20.1"
/note="Highly similar to putative callose synthase catalytic subunit; Highly similar to cotton putative callose synthase catalytic subunit, gb|AAD25952"
                                         complement (join (47118.
                                                                                                                                                                                           EESTTNEEGFYLKKQDPKTVSGQRDGSTENGSGNDVESGRPSVSSTTSSSSYIKNKSY
SSVRASHVLKNLMKCGGLDTNDAVLVPLNKSRSGAFGPAMEDERRYQYHQQHNARKSF
EGANGGIKMKETIEFCKPKVAPSKPSMAPLCSQCGKLFKPEKMHSHMKLCRGMKNSSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complement (join (44167. .44362,4443),45331. .45446,45524. .45593,45680.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DDRALTI VMKKLFRNYKKWCKYLGRKSSLMLPTI QQEVQQRKLLYMGLYLLI MGEAAN
LRFMPBCLCY I YHHL YGMLAGSVS PMTGEHVKPA YGGEDEAFLQKVVTP I YQTI SKEA
KRSRGGKSKHSVWRNYLDLNIX FWSL IROFRLGWPMRADAD FFCOTAEELALERSE IKS
NSGDRWMGKVNF VE I RS FWH I FRS FDRLWS FY I LCLQAM I V I ANNGSGELSA I FQGDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGRQKSDAREMQSFYQHYYKKYIQALLNAADKADRAQLTKAYQTAAVLFEVLKAVNQT
EDVEVADEVNLIVDIDLIKTQIYVPYNILPLDPDSQNQAIMRLPEIQAAVAALRNTRG
LPWTAGHKKKLDEDILDWLQSMFGFQKDNVLNQREHLILLANVHIRQFPKPDQQPKL
                                                                                                                                                      NNDLMTSNNTVKPRQQRCRN1PGNPLGHQRVLTTTLKE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (44167. .45812)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HGGAEYRGTGRGFVVFHAKFAENYRFYSRSHFVKGIELMILLLVYQIFGQSYRGVVTY
ILITVSIWFMVVTWLFAPFLFNPSGFEWQKIVDDWTDWNKWIYNRGGIGVPPEKSWES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (29404. .40201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="F3F20.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /protein_id="AAD30609.1"
/db_xref="GI:4836907"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="Hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'gene="F3F20.2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ILRVANEVEASNPRVAYLCRFYAFEKÄHRLDPTSSGRGVRQFKTALLQRLERENETTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    translation="MAQRREPDPPPPQRRILRTQTVGSLGEAMLDSEVVPSSLVEIAP/
.49979,50064. .50318))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _start=1
                                     .48467,48761. .49149,49186. .49302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .44362,44438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8. .44542,44760. .45258,
.45812))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .29936,30023. .30073,
S
                                                                           밁
                                                                                                                                             Ş
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sg
```

```
Matches 699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                     20166
                                                                 179
                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTTTTAAATTTTGGGAAAATTTAATAATATATGTATTAAATGG-CAAATAAAAGTTAG 59
GATAAAATTTTGACATAACCAAATATTATTTTCCGCCACGAATTGAGTCTACGAGAGATG 20345
                                                                                                                                                                                                GATAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATG 178
                                                                                                                                                                                                                                                                                                                                ATGAGAGTTTTTTAAATTTTTTTATTATAAAATAA-TTTTTTGCATGAAATTGTTTTTAA 118
                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGACAAATAAAAGTTAG
                                                          TCCTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAA 238
                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AHVEPYRFTMVLETFANLALVYNIFILGIGMDLRMVRITELKPVIIAFTGLLVALPVG
AFLYYLPGNGHPDKIISGCVPMSVALACTNEPDLARILALKLLRSDMGRTAMCAAIV
TDLCTWVLLVFGFASESKSGTMNKMMEPEVIITTAIFVLLCIFVIRGIAMIFAKTUKA
GGVVLCGLITDACGVHSITGAFLFGLSIPHDHIIRNMIEEKLHDFLSGILMFLFYIIC
GLRADIGFMLQFTDKFMMVVVICSSFLVKIVTTVITSLFMHIPMEDAFAIGALMNTKG
TLSLVVLNAGADTKALDSPMYTHMTIALLVMSIVVEPLLAFAYKFKKCLAHYKHRTVQ
KIKGTTELRVLACYHYLPNUSGITNLLQVSNATKOSPLSVFAIHLVELTGRTTASILI
MNDECKPKANFSDRVRAESDQIAETFEAMEVNNDAMTVQTITAVSPYATMHEDICVLA
EDKRYCFIILPYHKHLTPDGRWGEGNSSHAEINQNVLSHAPCSVGILVDRGMAMVRSE
SFRGESMKREVAMLFVGGPDDREALSYAMRMVGQHYIKLTVVRFVPGREALISSGKVA
ABYRBEKQUDDECIYEFNFKTMNDSSVSYIEKVNDGQDTIATIREMEDNNSYDLYVV
GRGYNSDSPVTAGLNDWSSSPELGTIGDTLASSNFTMHASVLVIQQYSATKRQAAVTA
AAATTVWGAVAGOTGNNLESAGGDAKWTRDAHEPFMKSMYEDEDEDDDEEDHQYGIHR"
67370*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VGIYIQDSPLFGHRGVLLDTSRNYYĞVDDIMRTIKAMSANKLNVFHWHITDSQSFPLV
LPSEPSLAAKGSLGPDMVYTPEDVSKIVQYGPEHGVRVLPEIDTPGHTGSWGEAYPEI
UTCANMFWWPAGKSWEERLASEPGTGQLNPLSKTYEVKNVLQDIVNQFPESFFHGG
GDEVIPGCWKTDPAINSFLSSGGTLSQLLEKYINSTLPYIVSQNRTVVYWEDVLLDAQ
IKADPSYLPKEHTILQTWNNGPENTKRIVAAGYRVIVSSSEFYYLDCGHGGFLGNDSI
YDQKESGGGSWCAPFKTWQSIYNYDIADGLLNEEERKLVLGGEVALWSEQADSTVLDS
YDQKESGGGSWCAPFKTWQSIYNYDIADGLLNEEERKLVLGGEVALWSEQADSTVLDS
LWPRASALAESLWSGNRDERGVKRCGEAVDRLNLWFYRMVKRGIGAEPIQPLWCLKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /proteIn_id="AAD30626.1"
/db_xref="G1:4836924"
/tabslation="MSVVRWPRVLTPSLLSQILKKQKNPVTALKLFEEAKERFPSYGH
/translation="MSVVRWPRVLTPSLLSQILKKQKNPVTALKLFEEAKERFPSYGH
NGSVYATMIDILGKSNRVLEMKYVIERMKEDSCECKDSVFASVIRTFSRAGRLEDAIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAD30612.1"
/db_xxef="G1:4836910"
/taanslation="MITISKEHVILIPILFFITLLSPLFSIALPINIWPKPRFLSWPQ
/txaanslation="MITISKEHVILIPILFFITLLSPLFSIALPINIWPKPRFLSWPQ
HKAIALSPNFTILAPEHQYLSASVTRYHNLIRSENYSPLISYPVKLMKRYTLRNLVVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="F3F20.3"
/note="similar to Na/H antiporter proteins; N-
half of protein is similar to Na/H antiporter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Similar to hexosaminidase; Similar to hexosaminidase, gi|1170249, gi|1076942 and others"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /translation="MSSGAPLNVTNPNYDIEESRFGKIVCYDQSLLFEKREQKGWESG
STLASSLPFFITQLFVANLSYRVLYYLTRPLYLPPFVAQILCGLLFSPSVLGNTRFII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGMCNTVHGALQDQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VTDFSLPLHHGVDESYKLSIPIGSFSAHLLAHSAWGAMRGLETFSQMIWGTSPDLCLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           join(51395.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="F3F20.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="Hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'gene="F3F20.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="F3F20.5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="F3F20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="AAD30610.1"
/db_xref="GI:4836908"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.7%;
99.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .52184,52258. .53210)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 653.8; DB 8 Pred. No. 6.7e-94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 103223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteins"
20404
                                                                                                                                                                                                                                                                                                                                                                                                     20225
```

239 CGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAA 298

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 3
AC093566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
RS Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Golder, S., Govette, M., Graham, L., Grand-Pierre, N., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Jones, C., Kamat, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., Karatas, A., Kells, C., LaRocque, K., Liu, G., MacClean, C., Macdonald, P., Major, J., Levine, R., Liu, G., MacClean, C., MacClean, P., McKernan, K., McPheeters, R., Meldrim, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., McPheeters, R., Meldrim, J., Marquis, N., Matthews, C., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Rieback, M., Riley, R., Ries, C., Rogov, P., Raymond, C., Retta, R., Rieback, M., Riley, R., Ries, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schupback, R., Strauss, N., Trayis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission

AL Submitted (03-SEP-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC093566 177522 bp DNA linear PRI 29-NOV-2
Homo sapiens chromosome 8, clone CTD-2017M22, complete sequence.
AC093566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens chromosome 8, clone CTD-2017M22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 177522)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC093566.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCAAAACATATTTGGCGTTATTATTTCTGTGGTCACTTGAATA 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGA-CATAACGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAAATGAATATTGAGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTTGACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTGTAGGTCACGTGAAATTTATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 177522)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI 29-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
         repeat_region
                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CE 3 (bases 1 to 177522)

RS Birren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N., Anderson,B., Barna,N., Bastien,V., Boyuklaykiy,L., Boukhgalter,B., Brown,A., Chargarata,D., Campopiano,A., Charg.J., Chazaro,B., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cook,A., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cook,A., Choepel,Y., Colangelo,M., Gorge,D., Galagan,J., Gardyna,S., Farcelra,P., FitzHugh,W., Gage,D., Galagan,J., Gardyna,S., Farcelra,P., FitzHugh,W., Garbam,L., Gardyna,S., Farcelra,P., FitzHugh,W., Graham,L., Grand-Pierre,N., Hagos,B., Heaford,A., Horton,L., Hulme,W., Iliev,I., Johnson,R., Jones,C., Kamat,A., Karatas,A., Kells,C., LaRocque,K., Jones,C., Mardonald,P., Major,J., Marquis,N., Matthews,C., Macdonald,P., Major,J., Marquis,N., Matthews,C., McCarthy,M., McEwan,P., McKernan,K., McPheeters,R., Meldrim,J., McCarthy,M., McEwan,P., McKernan,K., McPheeters,R., Nedarim,J., Norbu,C., Norman,C.H., O'Connor,T., O'Donnell,P., O'Neil,D., O'Neil,D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (29-NOV-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Nov 13, 2001 this sequence version replaced gi:16041411. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: sequence submissions@genome.wi.mit.edu
------ Project Information
Center project name: L12730
Center clone name: 2017_M_22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: Whitehead Institute/ MIT Center for Genome Center code: WIBR Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                              /rpt_family="L1MCb"
complement(4057, .4520)
/rpt_family=""."
                                                                        /rpt_family="Alv
complement(8512
                                                                                                                                                             complement (7834. .8206)
/rpt_family="L1MCb"
                                                                                                                                                                                                                                                                                                                  /rpt_family="L1MA3"
4521. .5565
                                                                                                                                                                                                                                                                                                                                                                                                                                       /rpt_family="AT_rich"
complement(3335. .398)
                                                                                                                                                                                                                                                         complement (5560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="MIR" 1654. .1695
                                                                                                                                    complement (8207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rpt_family="MER21B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone_lib="CITD Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="CTD-2017M22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "8"=qam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chromosome="8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _type="genomic DN
_xref="taxon:9606"
                                         _family="L1MCb"
                                                                     family="AluSx"
ement(8517)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _family="L1MA7"
                                                                                                                                                                                             family="LIM1"
ement (797)
                                                                                                                                                                                                                                                                                  family="THE1-int"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Research
```

repeat_region

repeat_region repeat_region

repeat_region

repeat_region repeat_region repeat_region repeat_region repeat_region

unsure unsure repeat_region repeat_region repeat_region

repeat_region repeat_region repeat_region repeat_region

ğ

_fami

repeat_region repeat_region repeat_region repeat_region repeat_region repeat_region repeat_region repeat_region repeat_region

repeat_region

/rpt_ta 27799.

repeat_region repeat_region repeat_region repeat_region repeat_region

repeat_region

ď ğ repeat_region

```
/rpt_family="LIMA10"
24692. .24734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="(TG
complement(8684.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (14379.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_family="L1MCa"
11656. .11678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="L1MCb"
10197. .10266
                                                                                                                                                                                                                                                                                                                                                                                             /note="<30 qual SNGL region"
21910 .22230
                                                                                                                                                                                                                                                                                                                                                                                                                          complement (20741. .20745)
/note="<30 qual SNGL region"
complement (20772. .2076)
/note="<30 qual SNGL region"
/note="<30 qual SNGL region"
complement (20781. .20785)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (19551. .19672)
/rpt_family="MER94"
                                          /rpt_family="L2"
27360. .27737
                                                                                                                                                                                                                 complement (24744.
                                                                                                                                                                                                                                                                              /rpt_family="MLT11"
complement(24534. ...
                                                                                                                                                                                                                                                                                                                                    /rpt_tam11y=
23141. .23161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lement(12114.
_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _family="(TG)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="AluSx"
7. 1500'
_family="L1MCb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lement(18761. .18886)
_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="MIR3"
                                                                                     _family="THE1B"
                                                                                                                  _family="L2"
                                                                                                                                                                                                                                  family="T-rich"
                                                                                                                                                                                                                                                                                                                      _family="AT_rich"
                                                                                                                                                                                                                                                                                                                                                                                family="THE1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="(GGGA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="AT_rich"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="HERV16"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      family="LTR16A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="MLT2F"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="(TG)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="MLT2F"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="(TTTG)n"
                                                                                                                                                                        family="AT_rich"
                                                                                                                                                                                                       family="L1MB1"
                                                                                                                                                                                                                                                                                                                                                    family="(CA)n"
                         family="L1MCb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .13564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .11678
                                                                                                                                  .26375
                                                                                                                                                                                                                                                                                                                                                                       .22297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13608
                                                                                                                                                                                                                                                                                                             24077
                                                                                                                                                                                            25687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ly="LTR16A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .10137)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .12294)
                                                                                                                                                                                                                      .25006)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                              LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                         RESULT 4
                                                                                                                                                                                                          AF217246/c
                                                REFERENCE
                                                                                                          SOURCE
                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              87060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           87000
                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tch 10.4%; al Similarity 46.5%; 236; Conservative
                                                                                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U
                                                                                                                                                174080 bp DNA linear HTG 26-JUL-2002
Homo sapiens chromosome 8 clone CTD-2017M22 map 8q24, WORKING DRAFT
SEQUENCE, 20 unordered pieces.
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 174080)
Schilhabel,M.B., Baumgart,C., Blechschmidt,K., Dette,M., Jahn,N., Lehmann,R., Menzel,U., Polley,A., Reichwald,K., Schudy,A., Siddiqui,R., Taudien,S., Wen,G., Rosenthal,A. and Platzer,M.
                                                                                        AF217246.5 GI:14327861
HTG; HTGS PHASE1; HTGS_DRAFT; HTGS_CANCELLED
HOMO sapiens (human)
                                                                                                                                                                                                                                                                       CATGTATAATATATATATATTGTA 87266
                                                                                                                                                                                                                                                                                               ААТАТАGAAAGTGAACAAAAAAATTA 511
                                                                                                                                                                                                                                                                                                                            TTGTATATGTTTTACATGTGTAATATATATATATATTGTATATGTATATGTTTTACATGTATAAT 87179
                                                                                                                                                                                                                                                                                                                                                                                                        TAGTACTTGTTTTTCGTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTAATTAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTTTTTTTAAATTTTTTATTATAAATAATTTTTTTGCATGAAATTGTTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                       33826. .33862
/rpt_family="AT_rich"
33914. .33969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt_fami
33826. .3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /rpt_fami
32015. .3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (30217. /rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27900. .28212
/rpt_family="L1MC2"
complement(30049. .30160)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="L2"
31519. .31672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (30368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .32064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .ly="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 73.4; DB 9; Length 1 Pred. No. 0.0071; o; Mismatches 271; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .30339)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .30563)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 177522;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
```

304

87119

244

86939

86879

64

0

```
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence Quality Assessment:
This entry has been annotated with sequence quality
estimates computed by the Phrap assembly program.
All manually edited bases have been reduced to quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biotechnology, Beutenbergstrasse 11, Jena 07745, Germany On Jun 7, 2001 this sequence version replaced gi:9967152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Taudien, S., Wen, G.P., Schilhabel, M., Menzel, U., Jahn, N., Baumgart, C. and Rosenthal, A.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (16-DEC-1999) Genome Analysis, Institute of Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
2 (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chromosome 8 genomic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Base-by-base quality values are not generally visible GenBank flat file format but are available as part of this entry's ASN.1 file.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Quality levels above 40 are expected to have less than 1 error in 10,000 bp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number wil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOTE: This is a 'working draft' sequence. It currently consists of 20 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                               be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 174080)
                                               54106
54206
68082
68182
81305
                                                                                                                                          34224
44863
                                                                                                                                                                          27051
27151
34124
                                                                                                                                                                                                                                                     19087
19187
                                                                                                                                                                                                                                                                                                                                   10220
10320
11056
11156
12127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.990329
Consensus quality: 144626 bases at least Q40
Consensus quality: 155148 bases at least Q30
Consensus quality: 165205 bases at least Q20
Quality coverage: 4.37 x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center project name: H284
Center clone name: CTD-2017M22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Web site: http://genome.imb-jena.de/
Contact: gscj-submit@genome.imb-jena.de
                                                                                                                             44963
                                                                                                                                                                                                                        22802
                                                                                                                                                                                                                                                                                                  12227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center: Insitute of Molecular Biotechnoloy Center code: IMB
                                                                                                                                                                                                                                          22702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequencing vector: M13; 100% of reads
                                                                                                                                                                                                                                                                                                                                                                                                               1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----- Summary Statistics
                95264 :
95364 :
                                                              68081
68181
81304
                                                                                                                                                         44862
                                                                                                                                                                                                                                                                                                  15590:
15690:
                                                                                                                                                                                                                                                                                                                                                                                                1003:
10219:
10319:
                                                                                                           54205
                                               81404
                                                                                                                                          44962
                                                                                                                                                                                                                                          22801
                                                                                                                                                                                                                                                                                                                                                                                   11055
                                                                                                                                                                                                                                                                                      19086
                                                                                                                                                                                                                                                                                                                                                                                                                                              903:
                                                                                                                                                                                                                                Gap or or or
                                                        gap of contig gap of contig
                                                                                                                                                                                                                                                                                   contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                               gap of contig
                                                                                                                        gap of contig
gap c
                             gap o
                                                                                                                                                       gap of contig
                                                                                                                                                                                       gap of contig
                                                                                                                                                                                                                      gap of contig
                                                                                                                                                                                                                                                                                                                                                                 contig of 736 bp in length gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                             gap of unknown length
contig of 9216 bp in length
gap of unknown length
                                                                                                                                                                                       unknown
of 6973
                                                                                                                                                                                                                                     of 3515
unknown
                                                                                                                                                                                                                                                                   unknown length
of 3396 bp in length
unknown length
             of 13860 bp in
unknown length
                                            unknown length
                                                              of 13123 bp
                                                                           unknown length
                                                                                          of 13876 bp
                                                                                                                          of 9143
                                                                                                                                          unknown
                                                                                                                                                         of 10639 bp
                                                                                                                                                                          unknown
                                                                                                                                                                                                                      of 4249
                                                                                                                                                                                                                                                                                                                 of 3364 bp in length
                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                                                                of 971 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                              of 903 bp in length
                                                                                                                                                                                                                        å
                                                                                                                          å,
                                                                                                                                         length
                                                                                                                                                                                                                                                  bp in length
                                                                                                           length
                                                                                                                                                                        length
                                                                                                                                                                                        g
                                                                                                                                                                                                                                   length
                                                                                                                                                                                                      length
                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                       in length
                                                                                                                                                                                                                    length
                                                                                                                        length
                                                                                                                                                                                     length
                            length
                                                                                          length
                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
```

VERSION KEYWORDS

ACCESSION

DEFINITION

CR318664 186175 bp Danio rerio clone CH211-59L22, ***

SEQUENCING

linear HTG 06-MAR-2004 ING IN PROGRESS ***, 16

FOCUS

SOURCE

ORGANISM

Danio rerio (zebrafish) Danio rerio CR318664.4 GI:45238492 HTG; HTGS_PHASE1. unordered pieces. CR318664

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Actinopterygii; Neopterygii; Teleostei; Ostariophysi

Ostariophysi;

Euteleostomi;

```
RESULT 5
CR318664/c
                                                                                                                     밁
                                                                                                                                               8
                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                              형
                                                                                      S
                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                            171304
                                                                                                                     171364
                                                                                                                                                                               171424
                                                                                                                                                                                                                                                                                                   171544
                                                                                                                                                                                                                                                                                                                                                                                                                        171664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                  425
                                                                                                                                                                                                           365
                                                                                                                                                                                                                                                                                                                                245
                                                                                                                                                                                                                                                                                                                                                                                           185
                                                                                                                                                                                                                                                                                                                                                                                                                                                  125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                            TACATGTATAATATATATATAGTA 171278
                                                                                                                                                                                                                                                                                                   ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                                     TTGTATATGTTTTACATGTGTAATATATATATATTGTTATATGTTTTACATGTGTAAT
                                                                                                                                                                                                          TAGTACTTGTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                     AATATAGAAAGTGAACAAAAAAAATTA 511
                                                                                                                                                ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA 484
                                                                                                                                                                                                                                       TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                                                                                                                                            TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                           ATATTCTATATGTTTTATATGTATAATATATATATATATTCTATATGTTTTATATGTAT 171545
                                                                                                                                                                                                                                                                                                                                                                                         CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTTTTTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTAAATTTGGGAAAATTTAATAATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                107593
107693
124141
124241
1124241
1149240
1149340
1170976
1171076
1171076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /map="8q24"
/clone="CTD-2017M22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .174080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107692: gap of unknown length
124140: contig of 16448 bp in length
124240: gap of unknown length
149239: contig of 24999 bp in length
149339: gap of unknown length
170975: contig of 21636 bp in length
171075: gap of unknown length
172471: contig of 1396 bp in length
172571: gap of unknown length
172680: contig of 1309 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 71.8; DB 2;
Pred. No. 0.013;
0; Mismatches 272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 174080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                               304
                                                                                                                                                                                                           424
                                                                                                                                                                                                                                        171425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                171665
                                                                                                                                                                                                                                                                                                                                                                                                                       171605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
```

```
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
misc_feature
                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Assembly program: XGAP4; version 4.5
Chemistry: Dye-terminator; 100% of reads
Consensus quality: 180247 bases at least Q40
Consensus quality: 180903 bases at least Q30
Consensus quality: 181829 bases at least Q20
Consensus quality: 181829 bases at least Q20
Insert size: 184675; sum-of-contigs
Insert size: 198399; 5.3% error; agarose-fp
Quality coverage: 8.23x in Q20 bases; sum-of-contigs Quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cambridgeshire, CB10 1SA, UK. E-mail enquiries: zfish-help@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk On Mar 7, 2004 this sequence version replaced gi:45126687.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cypriniformes; Cyprinidae; Danio
1 (bases 1 to 186175)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: zC59L22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www.sanger.ac.uk
Contact: zfish-help@sanger.ac.uk
_____Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (04-MAR-2004) Wellcome Trust Sanger Institute, Hinxton,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               McLay,K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         coverage: 7.74x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: This is a 'working draft' sequence. It currently consists of 16 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence.
                                                                                                                                         166851
166951
183316
                                                                                                                                                                                                   106048
136528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   soon as it is available and the accession number will
                                                                                                                                                                                                                                105948
                                                                                                                                                                                                                                                                                                                                                                                                                                  59268
59368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35024
35124
                                                                                                                                                                                                                                                              95093
99212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18322
                                                                                                                                                                                     136628
                                                                                                                                                                                                                                                                                            94993
                                                                                                                                                                                                                                                                                                                                                        73686
                                                                                                                                                                                                                                                                                                                                                                                                      63065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3904
                                                                                                                                                                                                                                                                                                                                                                                       70358
                                                                                                                                                                                                                                                                                                                                                                         70458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submission
                                 <u>`c</u>1
                                             /organism="Danio rerio"
/mol_type="genomic DNA"
/db_xref="taxon:7955"
               /clone
                 lone="CH211-59L22"
lone_lib="CHORI-211"
                                                                                             .186175
                                                                                                                                      166950: gap of 100 bp
183315: contig of 163
183415: gap of 100 bp
                                                                                                                                                                                                                   136527:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35023:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18421:
                                                                                                                                                                                                                                                                                               9509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8321:
                                                                                                            'Qualifiers
                                                                                                                                                                                    gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
                                                                                                                                                                                                                                                                                                                          gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of 18321 bp in length gap of 100 bp
                                                                                                                                                                                                                                                              gap
                                                                                                                                                                                                                                                                                                                                                        gap
                                                                                                                                                                                                                                                                                                                                                                                       gap
                                                                                                                                                                                                                                                                                                                                                                                                                     gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap of
                                                                                                                           contig of 2760 bp in length
                                                                                                                                                                                                                                                                                                                                           cont
                                                                                                                                                                                                                                                                                                                                                                         contig
                                                                                                                                                                                                                                                                                                                                                                                                    contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Statistics
                                                                                                                                                                                                                                                                                                                                                                                                      100 bp
g of 7293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
of 13500 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 bp
of 3922 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 16602 bp in length
                                                                                                                                                      100 bp
of 30223 bp in length
100 bp
of 16365 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                  of 3597 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 6522 bp in length
                                                                                                                                                                                                                                                              100 bp
of 4119 bp in length
100 bp
                                                                                                                                                                                                                  100 bp
of 30480 bp in length
                                                                                                                                                                                                                                                of 6636 bp in length
                                                                                                                                                                                                                                                                                                            of 2779 bp in length
                                                                                                                                                                                                                                                                                                                                           of 18328 bp
                                                                                                                                                                                                                                                                                                                                                                        of 3228 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 bp
                                                                                                                                                                                                                                                                                                                             100 bp
                                                                                                                                                                                                                                                                                                                                                        100 pp
                                                                                                                                                                                                                                                                                                                                                                                       100 bp
                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
                                                                                                                                                                                                                                                                                                                                           in length
                                                                                                                                                         á
                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
         밁
                                 8
                                                                  멼
                                                                                             Ś
                                                                                                                              밁
                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                           92309
                                                                                                                                                                                                                                                       92369
                                                                                                   186
                                                                                                                                                                                                                         66
                                                                                                                                                                                                                                                                                                                  209;
```

```
Similarity
                                                                                                                                           GTTTTTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA 125
                                                                                                                                                                                                                                                                                     TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA 65
                                                                     TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC 185
                                 ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGT
                                                                                                       TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT
                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vector_side:left"
18422._.35023
/note="assembly_fragment:00754
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment:01454
fragment_chain:1
clone_end.SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .tay.....39045
35124. .39045
/note="assembly_fragment:00149
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fragment_c
106048. .1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        950\overline{9}3..\overline{9}921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92214. .9499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70458. .73685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52746. .59267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39146. .52645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="assembly fragment:00580
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_fragment:00314
fragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_fragment:01198
| ragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="assembly_fragment:00105
Fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment:00484
Fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_fragment:00039
ragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="assembly_fragment:00391
!ragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment:00199.0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [ragment_chain
[83416. .18617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_fragment:00962
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_fragment:01736
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ragment_chain:
|36628. .166850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_fragment:02182
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_fragment:00253
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_fragment:00071
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                              10.2%;
                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                             Score 71.6; DB 2;
Pred. No. 0.013;
0; Mismatches 329
                                                                                                                                                                                                                                                                                                                                                                 329;
                                                                                                                                                                                                                                                                                                                                                                                              Length 186175;
                                                                                                                                                                                                                                                                                                                                                               Indels
```

0;

Gaps

0

245

92250

92310

밁

δ B δ 밁 5

δ

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
CR450749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assembly program: XGAP4; version 4.5 Chemistry: Dye-terminator; 100% of reads Consensus quality: 243112 bases at least Consensus quality: 243477 bases at least Consensus quality: 243496 bases at least transmission quality: 243996 bases at lea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Insert size: 245589; sum-of-contigs
Insert size: 241608; 2.3% error; agarose-fp
Quality coverage: 7.8% in Q20 bases; sum-of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.sanger.ac.uk
Contact: zfish-help@sanger.ac.uk
------ Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (21-MAY-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 15A, UK. E-mail enquiries: zfish-help@Banger.ac.uk Clone requests: clonerequest@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Danio rerio (zebrafish)
Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               coverage: 8.07x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center project name: zK2J6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cyprindae; Danio.

1, (bases 1 to 246589)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR450749 246589
Danio rerio clone DKEY-2J6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HTG; HTGS_PHASE1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CR450749.1 GI:47604407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unordered pieces
                                                                                                                                                                                                                                                           NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTACTTGTTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28229
28329
39448
39548
48875
48875
                                  18454
                                                                                                                                                            28328:
39447:
39547:
                                                                                                            48974:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Summary Statistics
8: contig of 28228 bp in length
8: gap of 100 bp
7: contig of 11119 bp in length
7: gap of 100 bp
4: contig of 9327 bp in length
4: gap of 100 bp
1: contig of 48577 bp in length
1: gap of 100 bp
1: gap of 100 bp
1: gap of 100 bp
4: contig of 86893 bp in length
4: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                da 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sum-of-contigs Quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear HTC
IN PROGRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-MAY-2004
***, 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          365
  á
                                                    밁
                                                                                                 Ś
                                                                                                                                                      밁
                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Sim
Matches 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                       184839
                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                  N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
  CCATACCGGTTAATAATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCC 301
                                                  AAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCC
                                                                                                                                                                                                                                                                                                        GAGAGTTTTTTAAATTTTTTATAAAATAATTTTTTTGCATGAAATTGTTTTAAGAT
                                                                                                 TGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGA 241
                                                                                                                                                    AGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              230490
236917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              184645
194758
194858
209128
209228
224944
2225044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fragment_....
1958. .209127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           fragment_chain:1"
237017. .246589
/note="assembly_fragment:00288.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fragment_chain:
225044. .230389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                230490. .236916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fragment_chain:
209228. .224943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment:00101
tragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="assembly_fragment:00033
Eragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment:00820
Eragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184645.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment:02042
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment:00514
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .246589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="assembly_fragment:00656
'ragment_chain:l"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment:00184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment:01036
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="DKEY-2J6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       db_xref="taxon:7955"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Danio rerio"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         194757: contig of 10113 bp in length
194857; gap of 100 bp
209127: contig of 14270 bp in length
209227: gap of 100 bp
224943: contig of 15716 bp in length
225043: gap of 100 bp
230389: contig of 5346 bp in length
230389: gap of 100 bp
236916: contig of 6427 bp in length
237016: gap of 100 bp
246589: contig of 9573 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _type="genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .184544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lib="DanioKey"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .48874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   semply_fragment:00397
chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sembly_fragment:01406
_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 70.4; DB 2; Length 2
Pred. No. 0.019;
0; Mismatches 383; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 246589;
```

0

Gaps

0

61

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 7
AC015830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Snoo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            185199 TATATATATATATATATATATATTTTTT 185229
                                                                                                                                                                                                                                                                                                                                                                                            Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreira, P., Fizhugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehoczky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Peterson, K., Pollara, V., Riley, R., Roy, A., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tersfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC015830 156550 bp
Homo sapiens clone RP11-678P10,
                                                                                                                                                                                                                                                         Direct Submission
Submitted (17-NOV-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 00 Jul 13, 2000 this sequence version replaced gi:6554520. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birren, B., Linton, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 156550)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens, clone RP11-678P10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTG; HTGS_PHASEO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AC015830.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC015830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTAGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAA 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGGCTTGGCAAGATTCCATAAGTTTATTT 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE: This record contains 163 individual sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads
                                                                                      Center project
Center clone na
                                                                                                                            Contact: sequence submissions@genome.wi
                                                                                                                                                                                                 Center code: WIBR
                                                                                                                                                                                                                   Center: Whitehead Institute/ MIT Center
                                                                                                                                                                           Web site:
                                                                                                                                                                                                                                              -- Genome Center
                                                                                                                                                                           http://www-seq.wi.mit.edu
                                                                                           name: 678_P_10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nusbaum, C. and Lander, E.
                                                                                                             L4327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOW-PASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear HTG 13-
SEQUENCE SAMPLING.
                                                                                                                                                              .mit.edu
                                                                                                                                                                                                                            for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HTG 13-JUL-2000
                                                                                                                                                                                                                              Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            185138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 185018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
```

```
and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that will be sequenced to completion. In the event that
                                                                                                                                                                                                                                                                                                                                                                                                                                 will be sequenced
the record is upda
                                                                                                                                                                                                                                                                                                                                                                                                                          be preserved.
                                                                                                                                                                                                                                                                   11100
11998
                                                                                                                                                                                                                                                                               9124
9976
10076
11000
                                                                                                                                                                                      16057
16157
17083
17183
18105
                                                                                                                                                                                                                       15034
15134
                                                                                                                                                                                                                                                      12098
12999
                                                                                                                                                                                                                                          14002
28425
29359
29459
29459
30341
30441
31340
31340
32361
32461
                                                        27393
28325
                                                                           25225
25325
26251
26351
                                                                                                    22242
23178
23278
23278
24197
24297
                                                                                                                                   21257
22142
                                                                                                                                                      20149
                                                                                                                                                                   19082
19182
                                                                                                                                                                                                                                                 13099
                                                                                                                                                                                                                                                                                                               7064
8000
8100
                                                                                                                                                                                                                                                                                                                                 5025
5946
6046
6964
                                                                                                                                                                                                                                                                                                                                                           4007
                                                                                                                                                                                                                                                                                                                                                                        3907
                                                                                                                                                                                18205
                                                                                                                                                                                                                                                                                                                                                                                           1996
                                                                                                                                                                                                                                                                                                                                                                                                                                 is updated, the accession number will
                                                                                                      24296:
25224:
                                                                                                                       23177
23277
                                                                                                                                                                                                          16156:
17082:
                                                                                                                                                                                                                                                                                             10075:
                                                                                                                                                                                                                              15133:
                                                                                                                                                                                                                                                                                        10999:
                                                                                                                                                                                                                                                                                                                                                                                                        901:
1001:
1895:
                                                                                                                                                                                                                                                 14001
                               30440:
                                            29458:
                                                                                                                                                                                               18104:
                   31439:
                                                                                                                                                                                                                       .6056:
                                                                                                                                                                                                                                                                                                                                                                               gap of contig gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                               contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig
                                                                                                                                                       contig
gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                         gap of contig
                                                                                                                                                                                                                                                                                                                                                      gap of contig
                                                                                                                                                                                                                                                                                                                                                                   gap of contig
                                                                                                                                                                                             gap c
                                                                                                                                                                                                                                          gap
                                                                                                                                                                                                                                                                                       gap c
                                                                                                                                                                                                                                                                                                         gap
                                                                                                                                                                                                                                                                                                                gap o
                                                                                                                                                                                                                                                                                                                                  gap
                                                                                                    gap of contig
                                                                                                                              gap of
contig
                                                                                                                                           gap of contig
                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                      gap or
                                                                                                                                                                                                                                                                   gap o
                                                                                                                                                                                                                                                                                gap o
                                                                                                                                                                                                                                                                                                    conti
                                                                                                                                                                                                                                                                                                                             contig
                         gap of contig
                                      gap of contig
                                                        conti
                                                                            gap of
                                                                                                                 gap of contig
                                                                                                                                                                                       gap of
                                                                                                                                                                                                          conti
                                                                                         contig
                                                                                                                                                                                                                                                                                                                                                                             , of
                                                                                                                                                                                                                                                                                                                                                                                                        of 901
100 bp
of 894
                                                                                                    f 100 bp
                                                                                                                                                                                                                             of 924
100 bp
0f 898
100 bp
0f 903
100 bp
0f 903
100 bp
                                                                                                                                                                                                                                                                                            100 bp
of 936
100 bp
of 924
100 bp
of 852
100 bp
                                                                                                                                                                                                                                                                                                                                         100
of 9
                                                                                                                                                                                                                                                                                                                                                                   100
of 9
                                                                                                                                                                                                                                                                                                                                                                                            of 9
                                                                                                                                                                          100 £
                                                                                                                                                                                       100 g
                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                 of 9
                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                              100 bp
                                                                                                                                                        100 bp
of 908
                         100 bp
                                      100 bp
of 882
                                                                                  of 926
100 bp
                                                                                                                 100 bp
                                                                                                                                            of 885
                                                                                                                                                  100
             100 bp
of 921
                                                                                                100
                                                                                                                                                                     of 967
 100 bp
of 879
                                                                of 932
                                                                      100
                                                          100
                                                                             of 942
                                                                                                                                                                                                                                                                                                                                                                   916
pp
                                                                                                                                                                                                                                                                                                                                                                               905
gd 0
                                                                                                                                                                                                                                                                                                                                                                                            906
dq 0(
                                                                                                                                                                                                                                                                                                                                          918
                                                                                                                                                                                                                                                                                                                                                       921
                                                                                                                                                                                 0 bp
877
                                                                                                                                                                                                                         923
                                                                                                                                                                           ďď
                                                                                                                                                                                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                            ďq
                                                                                                                                                                                                                                                                                                                                                                                                         đđ
                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                          ďď
                                                                                                                                                                                                                                                                                                                                                      bp in
                                                                                                                                                                                                                                                                                                                                                                               đđ
                                                                                                                                                        ď
                                                                                                                                                                                              ďq
                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                    đđ
                                                                                                                                                                                                                                                              đđ
                                                                                                                                                                                                                                                                           ďď
                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                             đ
                                                                                                      đđ
                                                                                                                  đđ
                                                                                                                               đđ
                                                                                                                                           đđ
                                                                                                                                                                     đđ
                                                                                                                                                                                 ďď
                                                                                                                                                                                                          ďď
                                                                                                                                                                                                                                                 bp in length
            đq
                         ďq
                                      ďď
                                                   ďď
                                                                ďq
                                                                            đđ
                                                                                         ďq
ďď
                                                                                                                                                                                                                                                                                                                                                                    ij
                                                                                                                                                                                                                                                                                                                                                                                in
                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                         in length
                                                                                                                                                                                                                                                                                                                                                                                                                      in length
                                                                                                                                                                                               ä
                                                                                                                                                                                                            in
                                                                                                                                                                                                                         in
                                                                                                                                                                                                                                     ij
                                                                                                                                                                                                                                                              in
                                                                                                                                                                                                                                                                           in length
                                                                                                                                                                                                                                                                                        in length
                                                                                                                                                                                                                                                                                                    in length
                                                                                                                                                                                                                                                                                                                 in length
                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                     Ħ
                                                                                                                                                                                  ä
                                                                                                                   ij
                                                                                                                                                         in
                                                    'n
                                                                'n
                                                                             ij
                                                                                                                               'n
                                                                                                                                            'n
            in length
                                       in
                                                                                          in
                                                                                                      in length
                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                              length
                                                                                                                                                                                                                       length
                                                                                                                  length
                                                                                                                               length
                                                                                                                                                         length
                                                                                                                                                                     length
                                                                                                                                                                                 length
                                                                                                                                                                                                            length
                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                              length
                                                                             length
                                                                                          length
                                                                                                                                            length
                                                                length
                          length
                                       length
                                                   length
```

```
34453
35473
35473
365055
375355
385488
385488
385488
385488
385488
385488
385488
385488
385488
385488
385488
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
445520
45520
45520
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
55620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
56620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33340
33440
34353
                     66859:
66959:
67875:
67975:
68879:
68879:
                                                                                                                               65848:
65948:
                                                                                                                                                                         63941:
64851:
                                                                                                                                                                                                           63841
                                                                                                                                                                                                                                                                                                       58766:
58866:
59775:
59875:
60784:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50588:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39476:
39576:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                36504:
37434:
                                                                                                                                                              64951:
                                                                                                                                                                                                                           62917:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40617:
                                                                                                                                                                                                                                                          1895:
fap contig o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap of contig
                                                                                                                                                              gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                         gap of contig gap of
                                   gap of contig gap of
                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap o conti
                                                                                                                                                                                                                                        gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gap c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of contig gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö.
                                                                                                                                                                                                                                                                                                                                                                                                                            of 960
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 of 90 by 100 b
                   of 916
100 bp
of 904
100 bp
of 928
                                                                                                                                            100 bp
of 897
                                                                                                                                                                         100 bp
of 911
100 bp
of 922
100 bp
of 924
100 bp
                                                                                                                                                                                                                                                                                                                 of 927
100 bp
of 909
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 bp of 883 100 bp of 923 100 bp of 914 100 bp of 914
                                                                                             100 bp
                                                                                                                                                                                                                                                                                                                                                                                             100 bp
of 917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp
of 929
100 bp
of 941
100 bp
of 909
100 bp
of 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100 bp
of 930
100 bp
of 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
of 932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100 bp
of 920
                                                                                                                                                                                                                                                                                                      of 909
                                                                                                                                                                                                                                                                                                                                                                                  100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   đđ
                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                    ďď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        đđ
                     đđ
                                                   ď
                                                                                đđ
                                                                                                               đđ
                                                                                                                                              đđ
                                                                                                                                                                           đđ
                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                     đđ
                                                                                                                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                                                                                                đ
                                                                                                                                                                                                                                                                                                                                                                                             đđ
                                                                                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               đđ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ģ
                      'n
                                                                                in
                                                                                                               'n
                                                                                                                                              in
                                                                                                                                                                           in
                                                                                                                                                                                                           in
                                                                                                                                                                                                                                        in
                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in
                                                   in
                                                                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                  length
                                                                               length
                                                                                                             length
                                                                                                                                            length
                                                                                                                                                                         length
                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
```

```
RESULT 8
PFA929359/c
LOCUS
                                                                             밁
                                                                                            Ş
                                                                                                               В
                                                                                                                             Ş
                                                                                                                                                  밁
                                                                                                                                                                 Ś
                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                    В
                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                50272
                                                                                                                                                   50212
                                                                                                                                                                                    50152
                                                                                                                                                                                                                                                                                          49972
                                                                                                                                                                                                                                                         50032
                                                            438
                                                                                                                                 318
                                                                                                                                                                                                     198
                                                                                                                                                                                                                                                                                                                            214;
                                                                                                                                                                                                                                                                         78
                                                                                                                                                                                                                                                                                                            18
PFA929359
                                                                                                                                                                                                                                                                                                                                    Similarity
                                           CAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGT
                                                            GGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATATATAGA
                                                                              TCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGT
                                                                                                              TATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTT
                                                                                                                                                 TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT
                                                                                                                                                                                    AAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAA
                                                                                                                                                                                                                     ATTTTTTAAAAACAAAATTTGGGAAAAGTTTTTATAATAGGANNAAATGGGGGTTTATA
                                                                                                                                                                                                                                                                        TTTTTATTATAAAATTATTTTTTGCATGAAATTGTTTTAAGATAAATTTTGACATAAC
                                                                                                                                                                                                                                                                                         AAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                              70008
70862
70962
71881
71981
72916
73016
                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                    9.9%;
                                                                                                                                                                                                                                                                                                                                                              70861:
70961:
71880:
71980:
71980:
72915:
73015:
73945:
                                                                                                                                                                                                                                                                                                                                                             contig
gap of
contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                   Score
Pred.
281723
                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                             100 bp
of 935
of 935
                                                                                                                                                                                                                                                                                                                                                                                              of 854
100 bp
of 919
                                                                                                                                                                                                                                                                                                                                    70;
No:
                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                    DB 2;
0.025;
                                                                                                                                                                                                                                                                                                                                                              đđ
                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                               đđ
                                                                                                                                                                                                                                                                                                                                                                                                                ďď
                                                                                                                                                                                                                                                                                                                            261; Indels
                                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                             in length
                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                                           Length 156550;
                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                           Gaps
                                                            492
                                                                                              437
                                                                                                              50331
                                                                                                                                                 50271
                                                                                                                                                                 317
                                                                                                                                                                                                                                                        50091
                                                                              50391
                                                                                                                                 377
                                                                                                                                                                                                     257
                                                                                                                                                                                                                      50151
                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                         50031
                                                                                                                                                                                                                                                                                                            77
                                                                                                                                                                                                                                                                                                                           0
```

SOURCE ORGANISM DEFINITION ACCESSION VERSION KEYWORDS

Plasmodium falciparum 8 AL929359 AL844508 AL929359.1 GI:23505209 Plasmodium falciparum Plasmodium falciparum 3D7 strain ър 307, DNA linear INV 29-JAN-2003 chromosome 9; segment 5/5.

REFERENCE AUTHORS RS Hall, N. Pain, A., Berriman, M., Churcher, C., Harris, B., Harris, D., Mungall, K., Bowman, S., Atkin, R., Baker, S., Barron, A., Brooks, K., Buckee, C.O., Burrows, C., Cherevach, I., Chillingworth, C., Chillingworth, T., Christodoulou, Z., Clark, L., Clark, R., Corton, C., Chillingworth, T., Christodoulou, Z., Clark, L., Clark, R., Corton, C., Cronin, A., Davies, R., Davis, P., Dear, P., Dearden, F., Doggett, J., Feltwell, T., Goble, A., Goodhead, I., Gwilliam, R., Hamel, A., Holroyd, S., Hance, Z., Harper, D., Hauser, H., Horroby, T., Holroyd, S., Harper, D., Hauser, H., Horroby, T., Holroyd, S., Larke, N., Kerhornou, A., Knights, A., Konfortov, B., Kyes, S., Larke, N., Kerhornou, A., Knights, A., Konfortov, B., Kyes, S., Larke, N., Lawson, D., Lennard, N., Line, A., Maddison, M., Mclean, J., Mooney, P., Moule, S., Murphy, L., Oliver, K., Ormond, D., Price, C., Quail, M.A., Rutter, S., Rutherford, K.M., Sanders, M., Seeger, K., Sharp, S., Smith, R., Squares, R., Squares, S., Stevens, K., Taylor, K., Tivey, A., Unwin, L., Squares, R., Whitehead, S., Moodward, J., Sulston, J.E., Craig, A., Newbold, C. and Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium 1 (bases 1 to 281723) of Plasmodium falciparum chromosomes 1, 3-9

TITLE

```
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sanders,M., Hauser,H., Baker,S., Unwin,L., Mungall,K., Pain,A., Hall,N., Bowman,S., Churcher,C., Quail,M. and Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 419 (6906),
22255708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   For more information about this sequence or the Malaria Project, see http://www.sanger.ac.uk/Projects/P_falciparum.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The Welcome Trust Sanger Inst
Hinxton, Cambridge CB10 1SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (20-SEP-2002) P.falciparum Genome Sequencing Consortium The Welcome Trust Sanger Institute, Wellcome Trust Genome Campus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L2368867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product="hypothetical protein"
/protein id="CAD51990.1"
/db_xref="GI:23505210"
/db_xref="UniProt/TremBL:Q812K2"
/translation="MLSIASTPGSYFYSSCSVDYLNNESANKFSSSDEKINFRRKRNV
/translation="MLSIASTPGSYFYSSCSVDYLNNESANKFSSSDEKINFRRKRNV
/translation="MLSIASTPGSYFYSSCSVDYLNNESANKFSSSDEKINFRRKRNV
/translation="MLSIASTPGSYFYSSCSVDYLNNESANKFSSSDEKINFRRKRNV
/translation="MLSIASTPGSYFYSSCSVDYLNNESANKFSSSDEKINFRRKRNV
/translation="MLSIASTPGSYFYSSCSVDYLNNKKSNENTLPNDHEKSNENA
/translation="MLSIASTPGSYFYSSCSVDYLNNKKSNENA
/translation="MLSIASTPGSYFYSSCSVDYLNKKSNENA
/translation="MLSIASTPGSYFYSSCS"
/translation="MLSIASTPGSYFYSSCS"
/translation="MLSIASTPGSYFYSSCS"
/translation="MLSIASTPGS"
/translation="MLSIASTPGSYFYSSCS"
/translation="MLSIASTPGSYFYSSCS"
/translation="MLSIAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="Moderate similarity to Mus musculus unknown TR:AAH06701 (EMBL:BC006701) (297 aa) fasta scores: 0.028, 28.962% id in 183 aa. ProfileScan hit to PS: Ubiquitin-associated domain."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db xref="UniProt/TremBL:Q812K1"
/translation="MDEENKLVEQLVEMGYSKEISQKVIQKSGAKTIEDAISWIELLD
ETENMTDEELKDVNTKDEEKGDSFKNKEKLKSENDMDENNITSCEKMSKLSPEEAQKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LFPNVSENYLSKMFDYLTNFKDEEINKNE"
join(3337. .3354,3499. .3577,3792. .4561)
/gene="PFI1525w"
/translation="mnilylintdTyTlfyTffiliicVTwiQYVLKKLQNKYSTfln
NEKIINHCKQILDKNNSLQENIYKLIKYNTGKDNYEDKLLSRKYASFYYLKRAIFFLH
NYKFLHIKRKLNCLFIRNNITDIRNLKYLTYKKVIQFKKDMNICLSEAYNSFDYKNKK
                                                                                                                                                                                                                                                                                                                                                                                                           HMM (Signal peptide probabilty 0.005, signal anchor probability 0.937) with cleavage site probability 0.004 between residues 28 and 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (join (4741. .4779, 5025. .5294, 5425.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALBLOKKI REKKLLKEKEEBLEKEKKRI AMTKEMOKRKEOLBEYERKKY I ESLEREKN
EHKKEKEKOLBLLKREY BAKFGI EYKI GNEKKKLODLTENEKADEI A LLFUNLKKNYK
DTKKOBLLASLUI LRTY FSNI Y DNI LEKKYOKI KKENKI FVEKI KI FEBMLHI FLLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="hypothetical protein"
/protein_id="CAD51991.1"
/db_xref="GI:23505211"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           join(3337. .3354,3499. .3577,3792.
/gene="PFI1525w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KNYDIYNENAEESNNYSSPYNEKKYRLIGDFSRYMSVTINEKKGGLHNNCTTVLVDVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (join (4741. .4779, 5025. .5294, 5425. .5555)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEDTGKMGKFLN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="PFI1520w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'gene="PFI1520w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mo
                                                                                                                     /product="hypothetical protein"
/protein id="CAD51992.1"
/db xref="G1:23505212"
/db xref="UniProt/TrEMBL:Q812K0"
                                                                                                                                                                                                                                                                                                                               TMHMM2.0 at aa 12-31"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="PFI1530c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon_start=1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chromosome="9"
                                                                                                                                                                                                                                                                                         codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="Signal anchor predicted for PFI1530c by SignalP 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene="PFI1530c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Plasmodium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                isolate="3D7"
                                                                                                                                                                                                                                                                                                                                                                         probable transmembrane helix predicted for PFI1530c by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to 281723)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .281723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      xref="taxon:36329"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .1934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .6005)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  527-531 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                falciparum 3D7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .4561)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berriman, M., Barrell, B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS50030,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E():
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                          CDS
```

```
complement(13072...13920)
/gene="PFI1545c"
/gene="PFI1545c"
/gene="PFI1545c"
/gene="PFI1545c"
/gene="PFI1545c"
/EC number="3.4.25.1"
/EC number="3.4.25.1"
/EC number="3.4.25.1"
/EC number="3.4.25.1"
/EC number="3.4.25.1"
/Seresistant to Nicotiana tabacum proteasome delta chain precursor SW:PRCD TOBAC (P93395) (234 aa) fasta scores:
precursor SW:PRCD TOBAC (P93395) (234 aa) fasta scores:
E(): 3.3e-08, 28.689% id in 244 aa. Pfam match to entry
PF00227 proteasome, Proteasome A-type and B-type, score
43.70, E-value 1.1e-10 and score 51.30, E-value 8.5e-13;
ProffileScan hit to PS50247, Multispecific proteases of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VLKKSKI QTE IKTYNQEE INKSNI QILIDINININMKEDVMENY KKDGRROKK FETY HQGS
INMS SEFKTKEY KNTP I SLNLLPDKLKVUT YTDNY VINKND INI TI QRROKILEI KENNK
EKDLTTINLPY PCDEKDY SCVLLHI EKKKI EI YLKLHDEY VKRYAQEI YDKY I SEEKDR
GY IDEVVEQY SEQEE KNIKKNIKKIANGDENS YMEGINKKEE ENI VMEENKKKEE ENI VMEENKKIKEE ERI I VMEENKNKEE ENI VMEENKKIKEE ERI I VMEENKNKEE ENI VMEENKNEE ENI VMEENKNEEL 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MEDIKISYEEKEKLHKAFRQHEFRILFDEYFDEISNEKYRKEKE
DYLLSLYFKGELKKDQIIIQPKEAFCIKTKILYSNQTSIQNICFENAGSGSVGIPYSL
SQIRPDKYGNNMSCLSIDCCVNPFTIDVIRKYNEVFNFMLEDVCLNIEKNIMKDKERI
CRDFKMLSNMKCKGEKPFLLCINKNVLKKNILLEEEKKLEKLKKEYEEKNETSKDVDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ELLYIYFKLYSKIYFFFQSESIYFFHFITRVLLVSWVYTPLNTTFHWNPTKEDKYLDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="hypothetical protein"
/protein_id="CAD51994.1"
/db_xref="GI:23505214"
/db_xref="UniProt/TrEMBL:Q8I2J8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     join(10145. .10388,10425. .10511,10701.
/gene="PFI1540w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NPNEEFINLSEDIKKMEIKDPNYLQCILYTLHL"
join(10145...10388,10425...10511,1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NNYVCTNNSENYEIIINKKIGLIFKHIHSNTYFILNSQKELKIKLSDNIYKQNIIMNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="mektteoddfifdsyeeylkkkitptdlyyiedeelifeifslg
lksrgylskedfysthyokkkknekniikekvnniiydinllynnskofffnlnyhl
hfcoekkistilfiryiskkkseissyidinnkkiaekinkkkyiyaskkdlsyynwh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="hypothetical protein"
/protein id="CAD51993.1"
/db_xref="UniProt/TrEMBL:Q812J9"
/db_xref="UniProt/TrEMBL:Q812J9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         join(8267. .8365,8749. .9405)
/gene="PFI1535w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  goin(8267. .8365,8749. .9405)
/gene="PFI1535w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="GOA:Q810U7"
/db_xref="GOA:Q810U7"
/db_xref="UniProc/TremBL:Q810U7"
/db_xref="UniProc/TremBL:Q810U7"
/tabBlat.on="MUNVNESQIKCHEEKSWDDEYDIKTPISDGTTIIGIIYDNGVML/LabBlat.on="MUVVNESQIKTRIVEVCRSGASAHSQKIIEIKHYCVSWGNENKK
ACDSRTSSGTFISNKCSRKINRINRHLYVCRSGASAHSQKIIEIKHYCVSWGNENKK
KGRFHEGETIYDETTYDBEIDIDINYLDYNNNDNNLVTKNKYFYEDKFNDYNPLVE
NVAHITYKKIIYTNNNFLSCALIFGGYDKIKKQQLYAVNLNGSIIEKHDFAVSGGSIY
IQSYLQDKYKKFMTKKECFNLILNCVKYAMHNDNSSGGLIRIVNITKSFVEEFTVVNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    codon_start=1
                                                                                                                                                                                                                                                                                                          complement (join (15258. 16144. .16285))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="proteasome precursor,
/protein_id="CAD51995.1"
/db_xref="GI:23505215"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           proteasome."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene="PFI1540w"
                                    /codon_start=1
/product="hypothetical_protein"
/protein_id="CAD51996.1"
/db_xref="GI:33505216"
                                                                                                                                                                                                                                                                                                                                                                                                        /gene="PFI1550c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16144. .16285)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon_start=1
                                                                                                                                                                                                                                                gene="PFI1550c"
_xref="UniProt/TrEMBL:Q812J7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lement (join (15258. .15314, 15535.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3.1"
                                                                                                                                                                                                                                                                                                                                                                    .15314,15535.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .10511,10701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .15628,15747.
                                                                                                                                                                                                                                                                                                                                                                    .15628,15747. .16056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .12151,12317.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .12151,12317.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .16056,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .12646)
```

gene

SGC

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCATACCGGTTAATAATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTTAGTACTTGTTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTTGACATCAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAATATATAATATATAAATTAAATA----TTTTTAAAGCAACATATATTATTATATAAAC 168297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATTATTCTATATATGAAAACAATAAAATAAATTATTTTTTTATTATAATCAAAGTA 168413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTGTATTTCTTTTAATTAATTATTTTATGTATTTTATTTTTCAATAATTAAAATTTCCAT 168473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAGAGTTTTTTAAATTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGA
                                                                                                                                                                             AATAAATATAGAAAGTGAACAAAAAAAATTAGTGGAAAAGGTAACT 526
                                                                                                                                                                                                                                AATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATA 480
                                                                                                                                                                                                                                                                                                                                   TATATTTTTAATTATTTTATATTTTTTTTCTCTATATAGAATAATTTTTCATTGAAC 168177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MGPPVLKITSMLSSHISEFFNYYHISLPILIQQYKLNKGESSNN KIIVNDEIISFILKENIHNLDSKKKKGYIVEGYENNILQAYSCLKYLPSHYFVLYADE EYIYKKYEEENDIAIFSYTQKKDYBIJNEPHEINNIDKRYLKDQVLSYIRNISDMLTIL GTNKKVLNLHDFWDQMLLDHYKNEVSKNKDEWDSTLNGDI"
join 17997. . 18035,18047. . 18112,18218. . 18278,18587. . 18845,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="UniProt/TremBL:Q812J6"
/tranblation="MTLKKIYNGHFRRVRIKKKKKKKKKKKYIYIYKVDGCISIHVFS
LSSEKADKSFORGYGIVUNILYGAGMFLSYILIMSCQKCRFGYIYVKHFGFYFLSSIF
YLFFLHRFRSWCCWIFASYFKFNYLSFFCSFLDIFLCKHIICYFIIFFNSTECIKLQN
VNIILHIYIIYIYIZATFYQKNK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement(join(19209. .19255,19418. .19474,19586. .22846,
23133. .23511))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="5 probable transmembrane helices predicted for PFI1555w by TMHMM2.0 at aa 28-45, 60-78, 85-107, 127-149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement(join(19209. .19255,19418. .19474,19586. .22846,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/product="hypothetical
/protein_id="CAD51997.1
/db_xref="GI:23505217"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      join(17997. .18035,18047. .18112,18218. .18278,18587. .18845,
19040. .19172)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="PFI1560c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="PFI1560c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="PFI1555w"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.6%; Score 68; DB 3; Length 281723; 47.0%; Pred. No. 0.044;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                162-181"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23511))
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               °.
18556 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches 275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        u protein"
DNA
linear
PRI 31-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                168117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1705 NE Pacific, Seattle, WA 98195, USA
To cite this work please use: SeattleSNPs. NHLBI HL66682 Program
for Genomic Applications, UW-FHCRC, Seattle, WA (URL:
http://pga.gs.washington.edu).
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens arachidonate 12-lipoxygenase (ALOX12) gene, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           кикатуота; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (basea to 18556)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (15-JAN-2004) Genome Sciences,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rieder, M.J., Daniels, R.L., da Ponte, S.H., Hastings, N.C., Ahearn, M.O., Rajkumar, N., Yi, Q. and Nickerson, D.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AY527817.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AY527817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                   /product="arachidonate 12-lipoxygenase"
join(1980. 2114,2688. 2889,4372. 4453,4578. .4700,
4816. .4919,5169. .5329,6199. .6342,7465. .7674,11122. .
11723. .11892,12351. .12472,15612. .15712,15821. .15991,
16109. .16288)
                        /translation="MGRYRIRVATGAWLFSGSYNRVQLWLVGTRGEAELELQLRPARG
EEEEFDHDVAEDLGLLQFVRLRKHHWLVDDAWFCDRITVQGFGACAEVAFFCYRWVQG
                                                                     /gene="ALOX12"
/codon_start=1
/product="arachidonate 12-lipoxygenase"
/protein_id="AAS00094.1"
/db_xref="GI:41324132"
                                                                                                                                                                                                                                                                                                                                                                                join(1947. .2114,2688. .2889,4372. .4453,4578. .4700,
4816. .4919,5169. .5329,6199. .6342,7465. .7674,11122. .
11723. .11892,12351. .12472,15612. .15712,15821. .15991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                   'gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'replace="a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    frequency="0.89"
replace=""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          frequency="0.56"
replace=""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Homo sapiens"
|mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               replace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rrequency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           frequency="0.29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    trequency="0.42"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         trequency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            frequency="0.13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    trequency="0.42"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          requency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _type=dispersed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   University of Washington,
```

밁

168592

SdC

S

301

168296

361

RESULT 9 AY527817/c

FOCUS

á 밁 5 밁 δ 망

421

.11208,

δ g δ 밁 Ś 밁 á

168472

121

168532

61

밁

```
variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     variation
                                                                                                              variation
                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            variation
variation
                                                       variation
                                                                                                                                                                        variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PPNMRFHEEKRLDFEWTLKAGALEMALKRVYTLLSSWNCLEDFDQIFWGQKSALAEKV
RQCWQDDELFSYQFLWGANBWLLRRSTSLPSRLVLBSGMEELRAQLEKELQWGSLFEA
DFILLDGIFANVIRGEKQYLAAPLVMLKMEPWGKLQBWVIQIQPBVBSSFTFTLFLPS
DPPLAWILAKSWYRNSDFQLHEIQYHLLWTHLVAEVLAVATWRCLFCHBIFIFKFLIFH
IRYTMEINTRAKTQLISDGGIFDKAVSTGGGGHVQLLRRAAAQLTYCSLCPEDDLADR
GLLGLFQALYAHDALRLWEIIARYVEGIVHLFYQRDDIVKGDPELQAWCREITEVGLC
QAQDRGFPVSFQSQSQLCHFLTWYDTGTTAGHAAINGCQLDWYAWPINAPCTWRMPPF
TYREDVIWATVWGSLPDVRQACLQMAISWHLSRRQPDMVPLGHHKEKYFSGPKPKAVL
NQFRTDLEKLEKEITARNEQLDWFYEKLKPSCIENSVTI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /gene="ALOX12"
/frequency="0.07"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          replace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          frequency="0.44" replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                  'gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            frequency="0.04" replace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                frequency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  replace="c"
                                         gene="ALOX12"
                                                                    replace="g"
                                                                                   gene="ALOX12"
frequency="0.03"
                                                                                                                           frequency="0.38"
replace="c"
                                                                                                                                                                                  frequency="0.90" replace=""
                                                                                                                                                                                                                  gene="ALOX12"
                                                                                                                                                                                                                                           frequency="0.09" replace="t"
                                                                                                                                                                                                                                                                                                                                            frequency="0.39"
replace="c"
                                                                                                                                                                                                                                                                                                                                                                          gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    replace="a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  frequency="0.14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      frequency="0.07"
                          frequency="0.18"
                                                                                                                                                           gene="ALOX12"
                                                                                                                                                                                                                                                                         gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                      replace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        requency="0.06"
                                                                                                                                                                                                                                                                                                                                                                                                                    requency="0.31"
                                                                                                                                                                                                                                                                                                                                                                                                                                                            eplace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               requency="0.31"
                                                                                                                                                                                                                                                                                                 _family="Alu"
_type=dispersed
    밁
                            Ś
                                                          밁
                                                                                   Ś
                                                                                                                  망
                                                                                                                                            Ş
                                                                                                                                                                         В
                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 250; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             variation
                                                                                                                                                                                                                                                                                                                                    variation
                                                                                                                                                                                                                                                                                                                                                                                                                                     variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                 10413 AAATATTTTCCTTAGCTATTAAAATTTAATATTTAAATTTAATTTAATTTAATATTAATA
                             208 TCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATATATTCTAACC
                                                                                                                                                91
                                                                                                                                                                                                      CC---GCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTTGG
                                                                                                                                             ATAATTTTTTGCATGAAATTGTTTTTAAGATAAATTTTTGACATAACCAAGTATTATTTT 150
                                                           ATATTGAAGCAATTAAAATTAAATTAAATTAATTAAATTAAATTAAATTAAATTAAAT
                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                  /rpt_family="MER1_type"
/rpt_type=dispersed
6807
                                                                                                                                                                                                                                                                                         /gene="ALOX12"
/frequency="0.36"
/replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /frequency="0.35"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 frequency="0.10"
replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 frequency="0.43"
replace="a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          frequency="0.02"
replace="g"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rpt_type=dispersed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           replace="a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   replace="t"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="ALOX12"
frequency="0.09"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="ALOX12"
frequency="0.35"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          replace="a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      frequency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                         'gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           replace="c"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        frequency="0.36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             replace="a"
                                                                                                                                                                                                                                                                                                                                                                                            replace="
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   replace="g"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="ALOX12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       frequency="0.01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   replace="g"
                                                                                                                                                                                                                                                                                                                                                                                                           frequency="0.08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               requency="0.36"
                                                                                                                                                                                                                                                9.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .6065
                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                Score 67.8; DB 9;
Pred. No. 0.097;
                                                                                                                                                                                                                                     Mismatches 282;
                                                                                                                                                                                                                                                                 Length 18556;
                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                       ω
--
                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                 10354
                                                                                             207
                                                                                                                                                                                                             90
                                     267
```

for Genome

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
AC040977/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dodge, S., Domino, M., Doyle, M., Ferreira, P., Fitzhugh, M., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Iliev, I., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Lieu, C., Liu, G., Locke, K., Macdonald, P., Marquis, N., McCarthy, M., McEwan, P., McGurk, A., McKernan, K., McPheeters, R., McCarthy, M., McEwan, P., McGurk, A., McKernan, K., McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Miranda, C., Mlenga, V., Morrow, J., Murphy, T., Naylor, J., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Olivar, T.M., Oliver, J., Peterson, K., Pierre, N., Pisani, C., Pollara, V., Raymond, C., Riley, R., Rogov, P., Rothman, D., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Tirrell, A., Travers, M., Trigilio, J., Voung, G., Zainoun, J., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9933 AAATTTATTAAATTAAAAATATTAAAATATTTTCCTTAGCTATTAAAAAAGGCAT 9879
                                                                                                                               Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Brown, A., Camarata, J., Campoplano, A., Chang, J., Chararo, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Graham, Graham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (11-APR-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA
3 (bases 1 to 174741)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Birren, B., Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Bastien, V., Beda, F., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Campopiano, A., Castle, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., DeArellano, K., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Gage, D., Collymore, A., Cooke, P., Doyle, M., Ferreira, P., FitzHugh, W., Colling, M., Cooke, P., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 174741)

Birren,B., Linton,L., Nusbaum,C. and Lander,E.

Homo sapiens chromosome 17, clone RP11-589P10
                                          Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens chromosome 17, clor
AC040977
     Johnson,R., Jones,
Lamazares,R., Lanc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC040977.10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAGATGGTGAAATGAAATGAATATATGAGTAATAAATATATAGAAAGTGAACAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTATTTAAAATTAAATTTTAAATTTTÄÄÄTTTATTTÄÄÄTTTTAATTTAATTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTAGTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAGATTCCAT 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATA 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTAGTACTTGTTTTTCTTTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGT 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 174741)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:21427846
     Lehoczky, J., Levine, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 bp DNA linear clone RP11-589P10, com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ear PRI 19-JUN-2002 complete sequence.
Lindblad-Toh, K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bource
                                     repeat_region
                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RS Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Changalo, M., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farro, S., Ferreira, P., FitzGerald, M., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kella, C., LaRocque, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Marthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Riback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schuer, S., Schuer, S., Schuer, S., Theodore, J., Topham, K., Travis, N., Trailla, J., Tesfaye, S., Theodore, J., Topham, K., Traves, M., Travis, N., Traillo, J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Liu,G., MacLean,C., Macdonald,P., Major,J., Marquis,N., Matthews,C., McCarthy,M., McEwan,P., McKernan,K., Meldrim,J., Meneus,L., Mihova,T., Mlenga,V., Murphy,T., Naylor,J., Nguyen,C., Nicol,R., Norbu,C., Norman,C.H., O'Connor,T., O'Donnell,P., O'Neil,D., Oliver,J., Peterson,K., Phunkhang,P., Pierre,N., Pollara,V., Raymond,C., Retta,R., Rieback,M., Riley,R., Rise,C., Pollara,V., Roman,J., Rosetti,M., Roy,A., Santos,R., Schauer,S., Rogov,P., Roman,J., Rosetti,M., Roy,A., Santos,R., Schauer,S., Schupback,R., Seaman,S., Severy,P., Spencer,B., Stange-Thomann,N., Stojanovic,N., Strauss,N., Subranian,A., Talamas,J., Tesfaye,S., Theodore,J., Topham,K., Travers,M., Travis,N., Trigilio,J., Ve,W.J., Vassiliev,H., Viel,R., Vo,A., Wilson,B., Wu,X., Wyman,D., Ye,W.J., Nobrania,G., Zainoun,J., Zembek,L., Zimmer,A. and Zody,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (19-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Jun 15, 2002 this sequence version replaced gi:21307465.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (15-JUN-2002) Whitehead Institute/MIT Center Research, 320 Charles Street, Cambridge, MA 02141, USA 4 (bases 1 to 174741)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: sequence submissions@genome.wi.mit.edu
------- Project Information
Center project name: L9393
Center clone name: 589_P_10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center: Whitehead Institute/ MIT Center for Genome Research Center code: WIBR
                                                                                                                                                                                                                                                                                         /rpt_family="L1MA2"
complement(283. .798)
/rpt_family="MER9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="RPCI-11 Human Male BAC" complement (33. .282)
                                               complement (6158.
                                                                                     rpt_family="HERVK9"
                                                                                                                                                                                         /rpt_family="HERVK9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="RP11-589P10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
```

repeat_region

```
repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                 unsure
                                                                                                                                                                                                                                                                                                                                                                          unsure
                                                                                                                                                                                                                                                                                                                                                                                                 unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                        repeat_region
                                                                                                                                               repeat_region
                                                                                                                                                                       repeat_region
                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                               repeat_region
                                                                                              repeat_region
                                                                                                                       repeat_region
                       repeat_region
                                                repeat_region
repeat_region
                                                                                                                        /rpt family="Alusc"
complement(31797. 31970)
/rpt family="LIM4"
31995. 32010
                                                                                                                                                                                                                                                                                                            /note="<30 qual SNGL region"
complement(27963. 27981)
/note="<30 qual SNGL region"
complement(27987. 27993)
/note="<30 qual SNGL region"
complement(28010. 28011)
/note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (6668.
/rpt_family="L1M18078...8130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_family="LTR33"
complement(16982..17028)
/rpt_family="MLT1K"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt
14357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /rpt_family="(TG)n"
complement(8131. .8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (25959. .26007)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement(22323. .23073)
/rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        compl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (26302.
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                            complement (27872.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ığı,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rpt
T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ğ
   /rpt_family="AluSx"
complement(33104. .33179)
                                                   /rpt_tamily="(CAT
complement(32411.
                                                                          /rpt_family="MLT2B3"
32346. .32409
                                                                                                 /rpt_family="AT_rich"
complement(32294. .323
                                                                                                                                                                                    /rpt
                                                                                                                                                                                                                            complement (30687.
                                                                                                                                                                                                                                                                                                  28574. .28668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     adı,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Į
Į
                             complement (32792.
                                                                                                                                                                                                              zdr)
                                                                                                                                                                                                                                       , idi
                                                                                                                                                                                                                                                              'zpt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : family="L1PA4"
]lement(11632. .14356)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="LIMA2"
. 8466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="L1MA2"
. 8130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="AT_rich"
[ement(8514..116)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      family="AluSx"
lement(20741. .2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="L1MA2"
. .15847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _family="L1MA2"
                                                                                                                                                                                                                                                              _famil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="AluSc"
                                                                                                                                                                                                                                       _family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                   Lement (27944.
                                                                                                                                                                                                                                                                                                                                                                                                              family="AluSp"
                                                                                                                                                                                                                                                                                                                                                                                                                                       family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="AluY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            family="AluSq"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="(CA)n"
                             family="MLT2B3"
ement (22777
                                                               family="(CATATA)n"
                                                                                                                                                                                                                                                                                      family="MER91C"
   family="AluSx"
ement(3310)
                                                                                                                                                                                     family="AluSc"
                                                                                                                                                                                                                family="MLT1J2"
                                                                                                                                                                                                                                                     .30507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .14587
                                                                                                                                                                                                                                                                           .29882
                                                                                                                                                                                                                                                              y="AluSc"
                                                                                                                                                                                                                                                                                                                                                                                                                          .28185)
                                                                                                   .32340)
                                                                                                                                                                                                                                                                                                                                                                                                     .27951)
                                                                                                                                                                                                                             30948)
```

```
RESULT 11
CR847887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                        VERSION
                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 250;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           129393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                129153 AATATTAAAATTTAATTTAATATTAAATTAATTAAATTAAGTTAAATTAATTAAATTA 129094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             128913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              129213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          448 ТАGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATAGAAAGTGAACAAAAAAA 507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91 ATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTTGACATAACCAAGTATTATTTT 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31 ATATGTATTAAATGGCAAATAAAGTTAGATGAGAGTTTTTTTAAATTTTTTATTAAA
                                                                                                                                                                                                                                                                                                                                                               Danio rerio clone DKEY-178N6, ***
                                                                               Direct Submission
Submitted (07-007-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 ISA, UK. E-mail enquiries:
zfish-help@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
On Oct 9, 2004 this sequence version replaced gi:53850225.
                                                                                                                                                                                                                                                                                   HTG; HTGS PHASE1.
Danio rerio (zebrafish)
                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
1 (bases 1 to 225328)
                                                                                                                                                                                                                                                                                                                      CR847887
CR847887.2 GI:54019808
                                             Center: Wellcome Trust Sanger Institute Center code: SC
                                                                                                                                                                                                                                                                                                                                                        unordered pieces.
Web site: http://www.sanger.ac.uk
Contact: zfish-help@sanger.ac.uk
----- Project Information
                                                                                                                                                                                     Sims,S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 АТАТТGAAGCAATTAAAATTAAATTAAATTAATTAATATTAAATTAAATTAAATTAAATTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATATTTTCCTTAGCTATTAAAATTTAATATTAAATTTAAATTTAATTTAATTATTAAATA 129334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTAGTACTTGTTTTTTCTTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC---GCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTGG 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGT 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAATATTCTAACC 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTTAATTAAAATAAAATATTAAAATATTTTCCTTAGCTATTAAAAAAAGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTAGTGGAAAAGGTAACTGGAAAAGAAAAGGCTTATTGGCTTGGCAAGATTCCAT 562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATA 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="MLT1D"
complement(33249..33789)
/rpt_family="LIMD2"
complement(33791..35118)
/rpt_family="LIPA13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 67.8; DB
Pred. No. 0.054;
0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 9;
                                                                                                                                                                                                                                                                                                                                                                           DNA linear HTG 08-OCT-2004 SEQUENCING IN PROGRESS ***, 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  282; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 174741;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  υ
-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    128859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          129034
```

```
FEATURES
                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                    Matches
                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
 111274
                                                                          111214
                                   66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chemistry: Dye-terminator; 100% of reads Consensus quality: 222988 bases at least Q40 Consensus quality: 223937 bases at least Q30 Consensus quality: 223737 bases at least Q20 Insert size: 224728; sum-of-contigs Insert size: 220016; 4.5% error; agarose-fp Quality coverage: 9.09x in Q20 bases; sum-of-contigs Quality coverage: 9.29x in Q20 bases; sum-of-contigs Quality coverage: 9.29x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assembly program: XGAP4; version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center project name: zK178N6
                                                                  GTTTTTTTAAATTTTTTATTATAAAATTAATTTTTTTGCATGAAATTGTTTTTAAGATAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: This is a 'working draft' sequence. It currently consists of 7 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                           TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           178609
178709
217333
217433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     124951
125051
128866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              111363
111463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128966
                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                              /note="assembly_fragment:00426
fragment_chain:2"
217433. .225328
                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment:01061
fragment_chain:2"
178709. .217332
                                                                                                                                                                                                                                                                                                                                                                                         fragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                              fragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                    125051.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2753. .111362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Danio rerio"
/mol_type="genomic DNA"
/db_xref="taxon:7955"
/clone="DKEY-178N6"
                                                                                                                                                                                                                                          /note="assembly_fragment:00093.0"
                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_fragment:00045
fragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                    'note="assembly_fragment:00219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_fragment:01763
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment:00004
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone_
                                                                                                                                                                36.34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   217332: contig of 38624 bp in length 217432: gap of 100 bp 225328: contig of 7896 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128965: gap of
178608: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2652: contig of 2652 bp in length
2752: gap of 100 bp
111362: contig of 108610 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              178708: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125050: gap of 100 bp
128865: contig of 3815 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             111462: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124950: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lib="DanioKey"
                                                                                                                                                                                                                                                                                                                                                                               .178608
                                                                                                                                                                                                                                                                                                                                                                                                                                      .128865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'Qualifiers
                                                                                                                                                <u>,</u>
                                                                                                                                                                Score 67.4; DB 2; Length 225328; Pred. No. 0.058;
                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
of 49643 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100 bp
of 13488 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.5
                                                                                                                                                412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                              ω
••
                                                                                                                                            Gaps
                                                                                                           65
```

δ 밁

문 S

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
CR847851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cocus
                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126
Assembly program: XGAP4; version 4.5 Chemistry: Dye-terminator; 100% of reads Consensus quality: 15949 bases at least Consensus quality: 160501 bases at least Consensus quality: 161321 bases at least Insert size: 164397; sum-of-contigs Insert size: 191089; 11.8% error; agarose
                                                                                                                                              Center: Wellcome Trust Sanger Institute Center code: SC Web site: http://www.sanger.ac.uk Contact: zfish-help@sanger.ac.uk
                                                                                                                                                                                                                                     Submitted (07-OCT-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 ISA, UK. E-mail enquiries: zfish-help@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk On Oct 9, 2004 this sequence version replaced gi:53828279.
                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                      Danio rerio (zebrafish)
Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Danio rerio clone DKEYP-115D7,
                                                                                                                                  Center project name: zKp115D7
                                                                                                                                                                                                                                                                                                                                        McLay,K
                                                                                                                                                                                                                                                                                                                                                                                                                                                        HTG; HTGS_PHASE1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CR847851.3 GI:54019839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CR84785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR847851
                                                                                                                                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unordered pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATATATATATAAAATATATTAATATTAATNATAAAAAATAAANAAATTTTT 111865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTAATTAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCTCTCTCTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTTGGCCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTACTTGTTT---TTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT
                                                                                                                  ----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          165797 bp
   agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA linear HTG 08-OCT-2004
SEQUENCING IN PROGRESS ***, 15
                                 Q20
Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111513
```

```
misc_feature
                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                            misc_feature
                                                                                                                                      misc_feature
                                                                                                                                                                              misc_feature
            misc_feature
                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Quality coverage: 8.28x in Q20 bases; sum-of-contigs Quality coverage: 7.29x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: This is a 'working draft' sequence. It currently consists of 15 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 as soon as it
be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               106709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87804
87904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32924
59474
59574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26996
27096
29763
29863
32824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16124
16224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 109743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            106609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80990
                                                                                                                                                                                                                                                                                                          fragment
16224. .2
                                                                                                                                        59574.
                                                                                                                                                                                                                                                                                                                                                                                         /organism="Danio rerio"
/mol_type="genomic DNA"
/db_xref="taxon:7955"
              /note="assembly_fragment:00229
fragment_chain:3"
84587. .87803
                                                                                                                                                                                                                                                                            /note="assembly_fragment:00826
fragment_chain:1"
                                                                                                          /note="assembly_fragment:01037
fragment_chain:2"
                                                                                                                                                                                                                                     fragment_
                                                                                                                                                                                                                                                                                                                    /note="assembly_fragment:01275
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                            /clone="DKEYP-115D7"
                                                                                                                                                   /note="assembly_fragment:01558
fragment_chain:2"
                                                                                                                                                                                              note="assembly_fragment:00143
fragment_chain:1"
                                                                                                                                                                                                                                     /note="assembly_fragment:00044
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                               clone_lib="DanioKeypilot"
                                                                                                                                                                                                                                                                                                                                                                                                                                                ocation/
note="assembly_fragment:00185"
                                                                   note="assembly_fragment:00073/
fragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                          106608: contig of 4408 bp in length 106708: gap of 100 bp 109742: contig of 3034 bp in length 109842: gap of 100 bp 114805: contig of 4963 bp in length 114905: gap of 100 bp 125130: contig of 10225 bp in length 125230: gap of 100 bp 165797: contig of 40567 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16223:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26995:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6123:
                                                                                                                                        .7745
                                                                                                  .80989
                                                         .84486
                                                                                                                                                                                                                                                             . 29762
                                                                                                                                                                                 59473
                                                                                                                                                                                                                           32823
                                                                                                                                                                                                                                                                                                           26995
                                                                                                                                                                                                                                                                                                                                                                                                                                                 'Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap of .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of 26550 bp in length
100 bp
of 17882 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of 2667 bp in length
100 bp
of 2961 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100 bp
of 10772 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of 16123 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 14197 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 3217 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 3397 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 3434 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                        RESULT 13
AC115599
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                              밁
                                                                                                                                                     Ś
                                                                                                                                                                                    밁
                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                밁
                                           DEFINITION
                                                            LOCUS
     VERSION
                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27474
                                                                                                                                                                                                                                                                                                                                                       27235
                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                           460
                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC115599 125
Dictyostelium discoideum
AX4, complete sequence.
AC115599
        AC115599.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                <u>AAATTATTAATATTTATTATTTATTTATTTAATAATATTAATTAT</u>
                                                                                                                                                                                                                                            GGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAA
                                                                                                                                                                                                                                                                                                                          ACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                            GGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGA
                                                                                                                                                                                     AAGGAAAGAGTACTTGGCCTTGCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATA 639
                                                                                                                                                                                                                                                                                                TAATATAATTÄÄTTTÄAT-TTTÄÄTTTÄTÄAÄTTÄÄTTAÄÄAÄÄTTÄÄTÄTATATTAATTÄÄ
                                                                                                                                                                                                                                                                                                                                                       CAATACCCACAAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTT
                                                                                                                                                        GGAGACTCAATTTCTAGTTCATCAAAACATATTTGGCGTTATTATTTCT 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fragment_chain:3"
87904...102100
/notee"assembly_fragment:00620
fragment_chain:4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="assembly_fragment:00353.0"
114906. .125130
/note="assembly_fragment:00434"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="assembly_fragment:00107"
109843. .114805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="assembly_fragment:00287
fragment_chain:4"
106709. 109742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="assembly_fragment:01990"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25231. .165797
       GI:28828893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .106608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 67.2; DB Pred. No. 0.068;
                                                             125623 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                 chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2;
                                                 DNA linear INV 12-MAR-20
; 2 map 4229098-4354721 strain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 165797;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11;
                                                                INV 12-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

579

27413

27473

27353

519

27294

459

399 27174

27234

339

27124

279

219

27064

159 26944 99

<u>ب</u>

27004

FEATURES

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
MEDLINE
PUBMED
REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                 SGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (12-MAR-2003) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany On Mar 4, 2003 this sequence version replaced gi:19570032. CDS predictions from GeneID do not necessarily reflect true genes. Further Information is available from IMB Jena, Department of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baumgart,C.
Direct Submission
Submitted (04-MAR-2003) Genome Analysis, Institute of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG.

Dictyostelium discoideum

Dictyostelium discoideum

Dictyostelium discoideum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baumgart,C.

Direct Submission

Submitted (21-MAR-2002) Genome Analysis, Institute of Molecular Biotechnology, Beutenberstr. 11, Jena 07745, Germany

3 (bases 1 to 125623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 125623)
Gloeckner,G., Eichinger,L., Szafranski,K., Pachebat,J., Dear,P., Lehmann,R., Baumgart,C., Parra,G., April,J.F., Guigo,R., Kumpf,K. Tunggal,B., Cox,E., Quail,M.A., Platzer,M., Rosenthal,A. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biotechnology, Beutenberstr. 4 (bases 1 to 125623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (http://genome.imb-jena.de/dictyostelium/)
and the Univerity Colonge, Institute for Biochemistry I
(http://www.uni-koeln.de/dictyostelium/project.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genome Analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The Dictyostelium Genome Sequencing (bases 1 to 125623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence and analysis of chromosome 2 of Dictyostelium discoideum Nature 418 (6893), 79-85 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Noegel, A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12097910
                                                                                                                                                                                         /protein_id="AAL92328.2"
/db xref="G1:28828944"
/db xref="G1:28828944"
/db xref="G1:28828944"
/transl ation="FKGNQKOQVNALLSQIYOGNVYEGFOCMLNWVMCSGDTVIGINI
/transl ation="FKGNQKOQVNALLSQIYOGNIFSTEPRYFNIGKMNDQIPE
DIVLPENLYTVEFKSISVPLPNAFFSTGAIGTILINNANFGFALLPNGFPONNFLKQLN
LNIIGNGFPESNAGSALSNLTELTLAN UNVNTRNITFPTFEPFNQLTKLAINFHSADP
LNQLFEFEPFINNINPLEELHIENLGFNISNDVDLTNLSKNLKLTFSNHTILPLNKFKY
PLNCSLDLSNYPVSIYDVDFRNLTSLGSLSNNYNGENLPBASNPDPEKLTYLLLSSNQF
NGSLPESYCSFVKGSLALGSNDLTGSVPDDFFKLTSGEEFPGLFPNFDDFFDDTPADV
CTAFSLDVPVNQLLKTMETTVFEFTGSNLGWDSDIESTQANVELAIIEPNKIKITIP
PGAGIQNATLKFGSNPSIEVILNYSEFYGPTIDSYYVQGSGIFFRGSYFSYNQDYENIF
TINKDYKFTAHIQTIEDQNLNNGVGFENDDTPISVLKNREAFNVSIDVAGKQSETVTF
IYFGNITMLSDLSSIQLNTTGGDFSFTMEIKFIETPTFPTFTSTSTTTTTSTST
INTYPPIENAGTYSLYIEVODFSFTMEIKFIETPTFPTPTFTSTSTSTST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : Deutsche Forschungsgemeinschaft (DFG).
Location/Qualifiers
                                                                                    SDDEGLSTSPTLSISFTYLFSIILLINFVF"
Complement (join (3950. 4537, 4680. 4
/note="GeneID exon scores (in order
38.84, 6.50 - GSCJ_ID dd_00185"
/codon_start=1
/product="similar to Ralstonia solanacearum (Pseudomonas
solanacearum). Putative GST-related protein (EC 2.5.1.18)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /product="similar to Dictyostelium discoideum (Slime mold). Gp138"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    join(<416. .688,837. .1349,1434. .1493,1638. .2931)
/note="GeneID exon scores (in order of location ranges):
/10.12, 21.67, 1.80, 118.27 - GSCJ_ID dd_00183"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                map="4229098-4354721"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="genomic
/strain="AX4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Dictyostelium discoideum" mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chromosome="2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           xref="taxon:44689"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Consortium
                                                                                                                                              .4808))
                                                                                                              of location ranges):
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kumpf, K.,
                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SdS
```

```
/translation="MLKSISLLKNNQILLKNIINNGRIINNVGEKLSSKSLLKINYSS STIDRIFNILDGTIDKNSAEYKDULINNNSTLKQLKENIEKIKLGGEKLNQKNISRG KLLVRERIEALIDVGSPFLEFSQLAGMGNYGKEEVAAGGITGIGKIHGVECVKNISRG STVKGGTYFPITVKKHLRAQEIAQENNLPCIYLVDSGGANLRQADVEPDRDHFGRIFFNQANNSAKRIPQIAVVMGSCTAGGAYVPAMADESVIYKGTGTIFLGGPPLVKAATGE IVTSEELGGADLHCRTSGVTDHYARDDAEAIAITRRIVSNLNRKKQPSPVITETEEPL
                                                                                                                                                                                                                                                                                                                                                                                                                                           AKRAKELKYLEDNRYLEGENPYENVKLLETOTKKNYKLNGEILKKLSVDINKLSERVR
CYRDRTIILKRLEEVIKRETSLNKFGEIKVEIFGSSSTQLALKKSDVDIVMSFETELT
KRNDITKMCYQFSSILRANGFYNIKPIIHAKVPIVKFFDFKTEFHCDITLTKDSGNTG
VVKEFCQLLPILPYLIIFCKNWASVLNINDASQGTLSSYSITNMVIFVLQKKGLLPSY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /product="similar to conserved hypothetical protein [Schizosaccharomyces pombe]"
/protein_id="AAL92333.2"
/db_xref="G1:28828897"
/translation="MRATHSRSVDVKTESTINIKTESTKVKTESAIDRFKSKSKKTK
KHHKVVKSNSDNDDDHSNINNERKKVKKSITSLKNKKKPSKIKKDLEPVVDQRQRDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAIKDKSKTDILKEIYKFVGLDYEKSISTLLIFKMIINDKRTAKPNEFYNYSPPSETI
LIPIEFSDPELLKENHILLIQFGSFPIHRNEMPTTKFTSTYNFTGTTEYFKYKGDPV
KIDRVKCPYVIDKFKSDFSIPQYGFTKYMGVPSEQITNFYSPSIRPEPCKPIVYHNDN
NNSERNATWLKLNFLLIFRYLQSRAVNDGRTVTYGEQLENLVSKDSSIEILEPLKDSI
NQSKCLICSRSTLSFGNFLCNTHYSKDLMDAFEKCKPYLFLDANNEPIKQLPKDQLES
/translation="MSIIYSPEVPFQLFEVELRDLDVNSEEFKFVAQIFNVGVPSTIK
KIQVVYNKSVWKNYNKNLGNSLKEIFVFHGSRLNEPKLIYTNGLLVEKTSAGLYFA"
                                                                                                                                                                                                                                                                                                                                                                          KDI QSFKNSSKEVQYVVDNRD I ADLLVYFFKYFGY I FDYRNSMVN I LDYNNDKKEPMD
AEEELKFQNNREYDNKNHVLPLVDMKLGDTKDLFF I KDC I AGHN I TRC I LRSQLFTLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="GeneID exon scores (in order of location ranges):
98.71 - GSCJ_ID dd_00191"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IANNGILFSESAVKGAHFIELCNQRGIPLVFLQNITGFMVGKTYESKGIAKDGAKMVM
AVATAKVPKITMIIGGSFGAGNYGMCGRSYSPRFLYMMPNAKISVMGGEQAASVLAQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="GeneID exon scores (in order of location ranges):
222.87 - GSCJ_ID dd_00188"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KYFQKAYLNLISGKLP" ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 complement (9983. .11383)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLSACMNOPINPPSDGFGVFRM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /trānslation="mQnnkfdftiindhkspntykvelmlielgvsyesisindylky
NSNNRIPALIDNTFKVPNILYESGSVLIYLANKFSKLLPDFRLNATLQNNNSQIISKS
VWQLVNLIPSFNNNNNNNNNNNNNNNNNNENEVKKVLQLLDDRLSTNQYLGGSQYSI
                                                                                                        /product="hypothetical protein"
/protein_id="AAL92334.2"
                                                                                                                                                                                                                       /note="GeneID exon scores (in 16.95 - GSCJ_ID dd_00194"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QKDNMAKENKQWSPEEENTFKKPISDKFEEEGSIYYSSARCWDDGVIDPQDSRKVIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YPTSELAGIVPSDLKKNFDIRKVIARLVDGSRFDEFKELYGTTLICGFARVHGMPVGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /protein_id="AAL92331.2"
/db_xref="GI:28828896"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(7921. .9687)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FKENEKKKEKTVF1KDKFAY1DPSNLQS1LDKKVKPYTQENNNYNYNSNYDDYY"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IVKKNSNLIGNKNIDNEKSNKVKEYPLKVKDSYTIHKDIGNNIVLYFKDKACNYQSDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /protein_id="AAO51486.1"
/db_xref="GI:28828895"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (5354. .7216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NLNNNGIKFSNDLGIAINAL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADISNSVWLLHLLKNSNSNQIISRFSNINKWLELINQRDSIKKLNNLMNNNFNNNSLN
                                                                             db_xref="GI:28828898"
                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           product="similar to Agrobacterium tumefaciens (strain C58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           translation="MGFITEWEYNNRKKDLGVDDDNNNNSINNKTTSNDSNDYYNNNN/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="similar to Plasmodium falciparum (isolate 3D7).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="GeneID exon scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /protein_id="AAO51485.1"
/db_xref="GI:28828894"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCC 33970). 3-methylcrotonoyl-CoA carboxylase beta
                                                                                                                                                                                                                                                                                                        . 13833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSCJ_ID dd_00186"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (in order of location ranges):
                                                                                                                                                                                                                                                                  order
                                                                                                                                                                                                                                                                  e
f
                                                                                                                                                                                                                                                              location
```

CDS

```
Matches
                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                    27005
                                                                                                                                                129
                                                                                                                                                                                                                                                                                                                                  254;
                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                ATTTGTTAAAATTTAAACCAATAGATTTTTATTAAAATCATAAAGATTATTTTGATTGTT
                                                                                                                                                                                                                                                          TTTTTAAATTTTTTATTATAAAATAATTTTTTTTTTTGCATGAAATTGTTTTTTAAGATAAAATTT 128
CCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTG
                                                                      TTAAACCTCGTAAAGTTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATA
                                                                                                            TCATCAAATAAAGTAATATTTTCCATATTATCAAAATAATAATCAAAGATGTAAATCAA 27124
                                                                                                                                            TGACATAACCAAGTATTATTTTCC--GCCACGAATTGAGTCTACGAGAGATGTCCTGTCT 186
                                                                                                                                                                                                                                                                                            AAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAGTTAGATGAGAGTT 68
                                     TTTGAAATGGTGAATTATTTACAAAAAAATTCACATTAGAATATCTTTATCAAATCATA
                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /translation="MNKILSILLLSILIFILRVESYPTYGGSNSANIRREDRISFRA PELOSGOTGILYMDIEGSTIVNDDFIRLTSDOKSLHGAINNTEPKEQPMWEVVFEFRVH GAGRIGADGILAWLURKGLAILFDYFDNDOMBEVFEFEV YNDGTKPYETAKDGSNMKLGSCSSRYRNDKHNAKSRIRYYHGLLSVEIDPNGSGIFEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="GeneID exon scores (in order 49.65, 142.60 - GSCU_ID dd_00179" /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /trānslation="mnsffvkkiQvvynkkvwdnyyQhwlksnhSleelfvfhGtSln
dpsliytnglraektQsGlyfaIksesnGftykntdCsQ1f1CR1L1frQnvsfrfhV
                                                                                                                                                                                                                                                                                                                                                                                                      /note="GeneID exon scores (in order of location ranges):
6.32 - GSCJ_ID dd_00190"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="hypothetical protein"
/protein_id="AAL92336.2"
/db_xref="GI:28828900"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product="hypothetical
/protein_id="AAL92335.2
/db_xref="GI:28828899"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VTTIEGIVQALPQASWNAGKNGIAIGSDGYFGITTVPIGTDNQLPIYINGSLYKIAVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="GeneID exon scores (in order of location ranges):
169.96 - GSCJ_ID dd_00184"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="GeneID exon scores (in order of location ranges):
5.39 - GSCJ_ID dd_00176"
                                                                                                                                                                                                                                                                                                                                                                                                                                              21628.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18511.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KNNDHHYPQYLISYNSKYRNSIML"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                                                                                                 9.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                            .21846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .20217
                                                                                                                                                                                                                                                                                                                                  <u>.</u>
                                                                                                                                                                                                                                                                                                                                                     Score 67; DB 3;
Pred. No. 0.078;
                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 al protein"
5.2"
                                                                                                                                                                                                                                                                                                                                                                      DB 3; Length 125623;
                                                                                                                                                                                                                                                                                                                                    270;
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of location
                                                                                                                                                                                                                                                                                                                                      ა
••
     306
                                                                             246
                                                                                                                                                                                         27064
                                                                                                                                                                                                                                                                                                                                      2
```

CDS

CDS

В á 밁 Ś 밁

Ś

밁 S В

GTTATTTTTAAAAAGAAAACAGGTTCAAAATCAAACTTTGATAATGATTTTACAAATGGT

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CR753884/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307 TAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTA
                                                                                                                                                                                                                                                                                                                                                                    Assembly program: XGAP4; version 4.5
Chemistry: Dye-terminator; 100% of reads
Consensus quality: 143152 bases at least Q40
Consensus quality: 14400 bases at least Q30
Consensus quality: 145119 bases at least Q20
Insert size: 147694; sum-of-contigs
Insert size: 147694; sum-of-contigs
Onality coverage: 10.33x in Q20 bases; sum-of-contigs
Ouality coverage: 10.81x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (03-SEP-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: clinterses: clonerequest@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk On Sep 4, 2004 this sequence version replaced gi:51870356.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pieces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CR753884 148394 bp
Danio rerio clone CH211-276D21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center code: SC
Web site: http://www.sanger.ac.uk
Contact: zfish-help@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 McLay, K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Actinopterygii; Neopterygii; Teleostei; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HTG; HTGS PHASE1; HTGS Danio rerio (zebrafish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CR753884.4 GI:51890093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CR753884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name: zC276D2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTTTTTTTTTAAAATTTAGTTTAAAATCATTTTAATAGATAATTTCA---GACACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACTTGTTTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATTAT 426
                                                                                                                                                                           be preserved.
                                                                                                                                                                                                        arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                        NOTE: This is a 'working draft' sequence. It currently consists of 8 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ттталалалаталалалалагаадалалаттталтталаладаттбаттталалалалала 27421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 148394)
                                        2609
2709
28744
28844
32354
32454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---- Summary Statistics
                                                         2608: contig of 2608 bp in length
2708: gap of 100 bp
28743: contig of 26035 bp in length
28843: gap of 100 bp
32553: contig of 3510 bp in length
32453: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Project
contig of 12534 bp in length
gap of 100 bp
contig of 2045 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WORKING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vertebrata; Euteleostomi;
Ostariophysi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTG 04-SEP-2004
NCE, 8 unordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27304
```

```
Ş
                        밁
                                             Ş
                                                                            밁
                                                                                                  Ś
                                                                                                                                밁
                                                                                                                                                    Ş
                                                                                                                                                                                  밁
                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                   Matches 291;
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                  78389
                                                                                                                                                                                      78449
                                                                                                                                                          259
                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                         19
GTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATAGA-AAGTG
                        AAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAAT
                                                                                                                                                                                                                                                              AAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTA
                                                                                                                                                                                                                                                                                                                                                                       AAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTAAATT
                                                  CTTTTTTGGGTTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTG
                                                                                                     ATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTT
                                                                                                                               ATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTT
                                                                                                                                                                                                                                      TTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTAAGATAAAATTTTGACATAACC
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79124
                                                                                                                                                                                                                                                                                                                                                                                                                                                              vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="assembly_fragment:01748
fragment_chain:3"
131584. .148394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fragment_chain
79124. .131483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment:00052"
47233. .79023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly_fragment:00317
Fragment_chain:3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_fragment:01122
ragment_chain:3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15088.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note="assembly_fragment:00182
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_fragment:00647
ragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="assembly_fragment:00061
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Danio rerio"
/mol_type="genomic DNA"
/db xref="taxon:7955"
/clone="CH211-276D21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_fragment:00084
ragment_chain:2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             one_end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47232: gap of 100 bp ir
79023: contig of 31791 bp ir
79123: gap of 100 bp
131483: contig of 52360 bp ir
131583: gap of 100 bp
148394: contig of 16811 bp ir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .148394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 2608
                                                                                                                                                                                                                                                                                                                                                                                                             9.5%;
47.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .28743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lib="CHORI-211"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44987
                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                 Score 66.8; DB
Pred. No. 0.081;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                  312; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 148394;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                               7;
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
497
                                                  438
                                                                                                                                                         318
                                                                                                                                                                                                                                                                                                                    138
                                                                            78270
                                                                                                                                                                                                             258
                                                                                                                                                                                                                                                                198
                                                                                                                                                                                                                                                                                                                                                                        78
                                                                                                                                                                                   78390
                                                                                                                                                                                                                                      78450
                                                                                                                                                                                                                                                                                                                                              78566
                                                                                                                                78330
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
CR759796/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOCOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pieces.
CR759796
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insert size: 195662; sum-of-contigs
Insert size: 192525; 5.1% error; agarose-fp
Quality coverage: 6.57% in Q20 bases; sum-of-contigs Quality
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assembly program: XGAP4; version 4.5
Chemistry: Dye-terminator; 100% of reads
Consensus quality: 193114 bases at least Q40
Consensus quality: 193781 bases at least Q30
Consensus quality: 194189 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Web site: http://www.sanger.ac.uk
Contact: zfish-help@sanger.ac.uk
------ Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (23-SEP-2004) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries: zfish-help@sanger.ac.uk Clone requests clonerequest@sanger.ac.uk On Sep 24, 2004 this sequence version replaced gi:52626701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CR759796.4 GI:52673634
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP
Danio rerio (zebrafish)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center project name: zK18A10
----- Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Burton, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopteryģii; Neopteryģii; Teleostei; Ostariophysi; Cypriniformes; Cyprinidae; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                coverage: 6.68x in Q20 bases; agarose-fp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center code: SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Danio rerio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Danio rerio
                                                                                                                                                                                                                              as soon as it be preserved.
                                                                                                                                                                                                                                                        arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number wil
                                                                                                                                                                                                                                                                                                                                          NOTE: This is a 'working draft' sequence. It currently consists of 10 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAAATTAAA 78022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATGGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACAAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAGGCTTATTGGCTTGGCAAGAT 557
                            5761
5861
20215
20315
20315
34681
34781
43319
43319
73326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----- Genome Center
5760: contig of 5760 bp in length
5860: gap of 100 bp
20214: contig of 14354 bp in length
20314: gap of 100 bp
34680: contig of 14366 bp in length
34780: gap of 100 bp
43318: contig of 8538 bp in length
43918: gap of 100 bp
73325: contig of 29907 bp in length
73425: gap of 100 bp
109883: contig of 36458 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          clone DKEY-18A10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bp DNA TITICAL ... ON UNDOTROPED DRAFT SEQUENCE, 10 unordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG 24-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78092
```

```
FEATURES
                                                                                                       멍
                                                                                                                            S
                                                                                                                                                            В
                                                                                                                                                                                 Ş
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                     д
                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                  뮹
                                                                            S
                     δ
                                                                                                                                                                                                                                                                                                                            Query Match 9.4%;
Best Local Similarity 48.5%;
Matches 242; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                   118041
                                                                                                                                                                                                                                                                       118101
                                                                                                                                                                                        131
                                                                                                                                                                                                                                             71
                                                                                                                                                                                                                                                                                                  1
                                                 ATTTGGGAAAATTTAATATATATGTATTAAATGGCAAATAAAAGTTTAGATGAGAGTTTT
                                                                                                        ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                                                                                       ACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAA 190
                                                                                                                                                                                                                  TTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTG
TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         129073
129173
182678
182778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109884
109984
118157
118257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5861.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment:00009
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                           /note="assembly fragment:01642
fragment_chain:2"
182778. 196762
                                                                                                                                                                                                                                                                                                                                                                                                                                                  fragment_chain:1"
118257...129072
/note="assembly_fragment:00216
fragment_chain:2"
129173...182677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_fragment:01226
fragment_chain:1"
109984. 118156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="genomic_DNA"
/db_xref="taxon:7955"
/clone="DKEY-18A10"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73426. .109883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment:00347
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tragment_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Danio rerio"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment:00500
fragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_fragment:00664.0"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_fragment:00051
eragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="assembly_fragment:00837
!ragment_chain:1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="assembly_fragment:00123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone_lib="DanioKey"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . .5760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109983: gap of 100 bp
118156: contig of 8173 bp in length
118256: gap of 100 bp
129072: contig of 10816 bp in length
129172: gap of 100 bp
182677: contig of 53505 bp in length
182777: gap of 100 bp
182777: gap of 100 bp

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .34680
                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                          Score 66.6; DB 2; Length 196762; Pred. No. 0.08;
                                                                                                                                                                                                                                                                                                                             Mismatches 254; Indels
                                                                                                                                                                                                                                                                                                                                υ
•
                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                  130
                                                                                                                                                                                                                                                                                                      70
                                                                                                                                        250
```

2;

```
Š
                                        밁
                                                               á
                                                                                     В
                                                                                                      δ
밁
117624 TATATATATATATATAT 117606
                      491
                                           GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA 490
                                                                                      rrgrrrrrcrrrrrgggrrcaacragrracrrrrrrccrrrgacarcaaaarrarrgra 430
                       GAAAGTGAACAAAAAAAAT 509
```

Search completed: November 17, Job time: 3275 secs 2005, 16:54:19

```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic -
                                  Ω
                                                                     ဂ
                                                                                                                                                           n
                                                                                                                                                                                                                                                                                         იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
          Pred. No. score grea and is der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89
        seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 greater t
s derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N_Geneseq_16Dec04:*
1: geneseqn1980s:*
2: geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     November 17, 2005, 13:43:52 ; Search time 473 Seconds (without alignments) 8823.293 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4390206 seqs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-810-788A-4
705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maximum Match
Listing first
        \begin{matrix} \mathbf{Q} & \mathbf{Q} 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aagcttttaaatttgggaaa.....tctgtggtcacttgaatacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              geneseqn2001bs:*
geneseqn2002as:*
geneseqn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqn2003cs:*
geneseqn2003ds:*
        GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB
                                                                                                                                                                                      66873
                                                                                                                                                                                                                                                                                       5 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100%
45 st
                                                                                                                                   ADQ24856
ABL55644
                                                                                                                                                                                                                                      ACN46935
ABZ10100
                                                                                                                                                                                                                                                                                                               ACN51594
ABZ10100
ABK39936
ABL32218
ACN47472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABZ10246
AAH71471
                                                                                                                                                                                                                                                                                         ABV60941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ä
                                                                                ADL44766
                                                                                                                                                                                      ABL70468
                                                                                                                                                                                                                    ABK31495
                                                                                                                                                                                                                                                                                                                                                                                                                                                ABZ10246
                                  ACN52919
ACN62049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     summaries
                                                                                                           ACN62049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mode1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8780412
                                                                           ACM51594 Cotton an Abz10100 Haematopo Abk39936 Human che Abl32218 Human imm Acm47472 Cotton pr Abv60941 Human pro Acm46935 Cotton pr Abz10100 Haematopo Abk31495 Signal tr Abl70468 Chemicall Adg24856 Human sof Ab162049 Cotton gy Ad144766 Human ova
                                                                                                                                                                                                                                                                                                                                                                                                                                          Abz10246 Haematopo
Aah71471 Human cer
Abz10246 Haematopo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                        Acn52919
Cotton an
Cotton gy
Cotton gy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       705
```

		ი	Ω		ი		ი					ი	Ω						o			ဂ	a
4.4 5	43	42	41	40	39	38	37	36	35	34	ω S	32	31	30	29	28	27	26	25	24	23	22	21
56.2 56.2	56.2	56.4		56.6	56.6	56.8	57.2	57.4	57.4	57.4	57.4	•	•	•	57.8	57.8	7	57.8	7.	58	8	58.4	58.4
8.0				8.0		8.1		8.1		8.1	8.1	8.1	8.2	8 2	8.2	8.2	8.2	8 2	8.2	8.2	8.3	8.3	8.3
17848 17848	17848	385	385	574	376	8423	353	9001	7857	4857	565	550	486	353	7823	7823	7823	7823	494	9646	554	631	631
o o	4.	տ	ហ	13	ഗ	σ	13	13	σ	13	13	ហ	13	13	6	9	σ	4	v	6	13	տ	ហ
ABK28164	AAS45323	ADI72626	ADL37765	ACN56366	ADL44697	ABL33407	ACN53258	ADS89773	ABQ67075	ADS89407	ACN56344	ABV57072	ACN61227	ACN53258	ABK28418	ABK31493	ABL34061	AAS45490	ABV10021	ABL33688	ACN51258	ADL38382	ADI73251
Abk39976 Human che Abk28164 DNA trans			Adl37765 Human ova	Acn56366 Cotton an	Adl44697 Human ova	Abl33407 Human imm	Acn53258 Cotton an	Ads89773 Oligonucl	Abq67075 Human ang	Ads89407 Oligonucl	Acn56344 Cotton an		Acn61227 Cotton gy	Acn53258 Cotton an	-	Abk31493 Signal tr	Abl34061 Human imm	Aas45490 Chemicall	Abv10021 Human pro	Abl33688 Human imm	Acn51258 Cotton an	Adl38382 Human ova	Adi73251 Human ova

ALIGNMENTS

```
RESULT 1
ABZ10246/c
ID 246/c
ID 246/c
ID 270246/c
ID 370246/c
ID 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; haematopoietic cell proliferation disorder; cytostatic; gene therapy; lymphocytic leukaemia; acute myelogenous leukaem cytosine methylation state; gene; ds.
                                                                                                                                                                                                                                                                  Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent that distinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Berlin K, Braun A, Distler J, Olek A, Piepenbrock C, Adorjan Lewin A, Lipscher E, Maier S, Schwope I, Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABZ10246 standard; DNA; 8056
                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-018942/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Haematopoietic cell proliferation disorder related DNA sequence #386.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABZ10246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2002; 2002WO-EP003401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200277272-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2001; 2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPIG-) EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             명
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Guetig D, n P, Grabs Model F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Howe A, Mueller J; G, Lesche R, Leu E; Mueller V, Otto T, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pelet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ç
```

The present invention describes a method for detecting and differentiating between haematopoietic cell proliferative disorders associated with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a

Claim 28; SEQ ID NO 386;

117pp; English.

```
RESULT 2
AAH71471/c
ID AAH714
XX
AC AAH714
XX
AC AAH714
XX
DT 19-SEP
                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and their complements; and as primers for the amplification of haematopoietic cell proliferation disorder related DNA sequences. The nucleotide sequences from the present invention can also be used for detecting a predisposition to, differentiation between subclasses, diagnosis, prognosis, treatment and/or monitoring of haematopoietic cell proliferative disorders. The present method enables highly specific classification of haematopoietic cell proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               which distinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 represent specifically cliared nucleic sequences from the present invention. Oligonucleotides from the present invention can be used: for differentiating between healthy haematopoietic cells and proliferative disorder haematopoietic cells; for differentiating between acute
          19-SEP-2001
                                      AAH71471;
                                                                      AAH71471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 8056 BP; 3711 A; 0 C; 371 G; 3974 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               biological sample obtained from the subject with at least 1 reagent,
                                                                                                                                                                                                                     6674
                                                                                                                                                                                                                                                                                                                                                  6794
                                                                                                                                                                                                                                                                                                                                                                                                                  6854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7154
                                                                                                                                                                                                                                                                                                                  425
                                                                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                       AAATTAATAAAAAATAAATAATTTTTTTT
                                                                                                                                                                             TGGCTTGGCAAGATTCCATAAGTTTATTT
                                                                                                                                                                                                                   AATTTAATTAAAAAATTAAAAATTTCATATAAAAAACATAAAAATAAAACAATAAAATAT
                                                                                                                                                                                                                                                   ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA
                                                                                                                                                                                                                                                                                                                                                  AAATATTTTTTATTTTTTTATATTTTTTCATTTAATATTTTTAATTTTTAATTTTTAAATTCA
                                                                                                                                                                                                                                                                                                                                                                              TAGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                  TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCGGTTAATAATTCTAACCGGTTTATAAGTTTACATAAATCATTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTTTTTTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     allowing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for improved and informed treatment
      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 64.2; DB 8; Pred. No. 0.022;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                    572
                                                                                                                                                       6586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 8056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                                                                                                                                                                                                                                                                                                                                                                                424
                                                                                                                                                                                                                     6615
                                                                                                                                                                                                                                                                                   6675
                                                                                                                                                                                                                                                                                                                                                  6735
                                                                                                                                                                                                                                                                                                                                                                                                                  6795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7095
                                                                                                                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                                                                                                                                                                                                                              364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                   543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184
```

RESULT 3
ABZ10246
ID ABZ1
XX
AC ABZ1
XX

ABZ10246 standard;

DNA;

8056

ВP

ABZ10246;

```
밁
                        S
                                                 밁
                                                                        Ş
                                                                                                    밁
                                                                                                                           Ş
                                                                                                                                                     밁
                                                                                                                                                                              Ś
                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-DEC-1999; 99US-016561r.
21-DEC-1999; 99US-0171350P.
14-MAR-2000; 2000US-0189315P.
12-MAY-2000; 2000US-0203791P.
09-UUN-2000; 2000US-0210600P.
21-JUL-2000; 2000US-0220114P.
                                                                                                                                                                                                                                                                                                                                The invention relates to novel genes (AAH68727-AAH73383) associated with cervical cancer with cytostatic activity. The nucleic actids and encoded polypeptides are useful: to assess if a patient is afflicted with cervical cancer or has a pre-malignant condition; to monitor the progression of cervical cancer or a premalignant condition in a patient; and to select and/or assess the efficacy of a compound or therapy for inhibiting cervical cancer in a patient. The nucleic acids may also be useful for gene therapy
                                                                                                                                                                                                                                                                                                            Sequence 612 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200142467-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human cervical cancer marker nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated nucleic acid for diagnosing and treating cervical cancer and for assessing and detecting compounds for treating the cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-DEC-2000; 2000WO-US033312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC
                                                                                                      145
                                                                                                                              371
                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001-375006/39.
                         491
                                                                           431
                                                                                                                                                                                                                                  251
                                                   85
                                                                                                                                                                                                                                                            136;
                                                                                                                                                                                                                                                                       Similarity
                        GAAAGTGAACAAAAAAA 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 564; 1051pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ø
                                                                                                                                                                             TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC 370
                                                                           GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                   TTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTA 430
                                                                                                                                                       TTTTTTTTTTNAAAATATTTTTTTGGTTTAGTTGAAATAATTGGGTATGGGTGTATTTT
                                                                                                                                                                                                                         TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
 AAAAAAAAAAAAAAA
                                                   9.0%;
nilarity 52.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deeds J,
                                                                                                                                                                                                                                                                                                            380 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; pre-malignant condition; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Berger
                                                                                                                                                                                                                                                                                                            50 C; 2 G;
                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                        Score 63.4;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P
                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhao
                                                                                                                                                                                                                                                                                                              178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ×
                                                                                                                                                                                                                                                                                                              T; 0 U;
                                                                                                                                                                                                                                                                         .029;
                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2745
                                                                                                                                                                                                                                                           122;
                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                   Length 612;
                                                                                                                                                                                                                                                                                                               Other;
                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                            206
                                                                                                       86
                                                                                                                                                                                                                                                            0
```

16-JAN-2003

(first

entry)

```
· 5
                                                                밁
                                                                                               Ś
                                                                                                                                     밁
                                                                                                                                                                 á
                                                                                                                                                                                                         Query Match
Best Local S
Matches 274
                                                                                                                                                                                                                                                                                                        determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and their complements; and as primers for the amplification of haematopoietic cell proliferation disorder related DNA sequences. The nucleotide sequences from the present invention can also be used for detecting a predisposition to, differentiation between subclasses, diagnosis, prognosis, treatment and/or monitoring of haematopoietic cell proliferative disorders. The present method enables highly specific classification of haematopoietic cell proliferative disorders allowing for improved and informed treatment of patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   represent specifically claimed nucleotide sequences from the present invention. Oligonucleotides from the present invention can be used: for differentiating between healthy haematopoietic cells and proliferative disorder haematopoietic cells; for differentiating between acute lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    differentiating between haematopoietic cell proliferative disorders associated with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least 1 reagent, which distinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent to distinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; haematopoietic cell proliferation disorder; cytostatic; gene therapy; lymphocytic leukaemia; acute myelogenous leukaem cytosine methylation state; gene; ds.
                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a method for detecting and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-018942/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lewin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2002; 2002WO-EP003401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (EPIG-)
                                                                                                                                                                                                           Local Sir
hes 274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K, Braun A, Liverjan Piepenbrock C, Adorjan Libscher E, Maier S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EPIGENOMICS
                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                            8056 BP;
ACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAA
                                                                  TTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTG 130
                                                                                                                                      ATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lipscher E,
Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NO 386; 117pp;
                                                                                                                                                                                                                                                                            3711 A; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proliferation disorder related
                                                                                                                                                                                                                       8.9%;
45.0%;
                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                            C; 371 G;
                                                                                                                                                                                                       Score 62.6; DB 8;
Pred. No. 0.043;
0; Mismatches 334;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Guetig D, Ho
1 P, Grabs G,
Model F, Mu
                                                                                                                                                                                                                                                                            3974 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mueller V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Howe A, Mue
G, Lesche R,
                                                                                                                                                                                                                                        Length 8056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mueller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Otto T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              веquence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [F]
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pelet C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       that
                                190
                                                                  2228
                                                                                                                                                                         70
```

New isolated nucleic acid molecule that encodes a plant protein or its fragment, useful for isolating a variety of agronomically significant genes associated with plant growth, quality or yield, and as molecular

```
RESULT 4
ACN51594
                                                                                                                                                                                                                                                                                                        Cotton; plant; EST; expressed sequence tag; transgenic plant; androecium; variety Nucotton33B; library LIB3828; molecular tag; molecular marker; genetic mapping; molecular mapping; seed germination; plant growth; plant quality; plant yield; plant breeding; tissue printing; ss.
                                                                            (DEIK/)
(FENG/)
(FINC/)
                              Deikman
                                                                                                                                                                                                                                                                           Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                            Cotton androecium tissue EST Clone ID: LIB3828-004-Q1-N6-H2,
                                                                                                                                                                                                                                                                                                                                                                                                                             02-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACN51594
WPI; 2004-479808/45
                                                                                                                                              14-DEC-2000; 2000US-0255619P
                                                                                                                                                                            12-DEC-2001; 2001US-00021323.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191
                                                            DEIKMAN J.
FENG P C C.
FINCHER K L.
ZIEGLER T E.
                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TIGITITITCTTTTIGGGTTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTTATTTATTTTAAAATAATTTÄTTAATTTTTGTÄTTTÄAATAAATTTTATTTTAATT 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT 310
                            Feng
                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                PCC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA;
                                Fincher
                                Ę
                              Ziegler
                                                                                                                                                                                                                                                                                                                                                                                              SEQ: 6375.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2527
```

밁 Ś 밁 Ś 밁 Ş 밁 ş 밁 ş 밁 Ś 밁 Ş 밁 δ

Claim 1;

SEQ

ID NO 6375; 34pp; English.

invention relates

6

17880 cotton expressed sequence tags (ESTs; ESTs were isolated from cDNA libraries generated

```
RESULT 5
ABZ10100/c
ID ABZ101
XX
AC ABZ101
XX
DT 16-JAN
XX
DT 16-JAN
XX
KW Human;
KW gene t
KW gene t
KW cytosi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Commolecular tags to isolate genetic regions, to isolate genes, to map
Complexity to determine gene function and to determining whether genes are
commembers of a particular gene family. The nucleic acid molecules may be
comembers of a particular gene family. The nucleic acid molecules may be
comembers of a particular gene family. The nucleic acid molecules may be
comembers of a particular genes and could also serve as
comembers of a particular growth, quality, yield, and could also serve as
comembers of the many genes important in initiating and maintaining
comembers and cis-regulatory genes important in initiating and maintaining
comembers and cis-regulatory elements which will be useful to express
commonically significant genes in these tissues and/or other tissues,
comembers, genetic and molecular mapping, and in cloning of agronomically
comembers, genetic and molecular mapping, and in cloning of agronomically
comembers, genes. The nucleic acid molecular markers useful in breeding
compensations the expression level or pattern of a protein or mRNA and for
compensation to the pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation or pattern of a protein or mRNA and for
compensation o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from primed or non-primed seeds from variety DP50B, mature seeds from variety Coker 312 Boswell 96 Field, and androecium tissue, gynoecium tissue, developing fibres, carpel walls and septa from variety Nucotton33B. The invention also relates to substantially purified proteins or their fragments encoded by nucleic acid molecules of the invention, and to transformed plants having a nucleic acid construct comprising a nucleic acid construct to the invention. The cotton ESTs are useful
     gene therapy; lymphocytic leukaemia; cytosine methylation state; gene; ds
                                                       Human; haematopoietic cell proliferation disorder; cytostatic;
                                                                                                                                                        16-JAN-2003
                                                                                                                                                                                                        ABZ10100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 531
                                                                                                  Haematopoietic cell proliferation disorder related DNA sequence #240
                                                                                                                                                                                                                                                      ABZ10100 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ľ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   office at seqdata.uspto.gov/sequence.html?DocID=US20040123340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGATTAAAAAGGGTTTTAAAAAAAAAAAAAAAAAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                           GATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAACAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 287
                                                                                                                                                        (first
                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; 0 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 62.4; DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     172 T; 0 U; 2 Other;
                                acute myelogenous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 13; Length 531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136;
                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as
```

```
밁
                                Ş
                                                                           밁
                                                                                                             Ş
                                                                                                                                                        밁
                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                           which distinguishes between methylated and non-methylated CpG which distinguishes between methylated and non-methylated CpG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 represent specifically claimed nucleotide sequences from the present invention. Oligonuclectides from the present invention can be used: for differentiating between healthy haematopoietic cells and proliferative disorder haematopoietic cells; for differentiating between acute [CC] tymphocytic leukaemia and acute myelogenous leukaemia; as probes for determining the cytosine methylation state and/or single nucleotide polymorphisms (SNPs) of haematopoietic cell proliferation disorder related sequences and their complements; and as primers for the amplification of haematopoietic cell proliferation disorder related between subclasses, diagnosis, prognosis, treatment and/or monitoring of haematopoietic clals spiloration of haematopoietic clals proliferation of haematopoietic clals proliferation of haematopoietic clals proliferative disorders. The present method enables a highly specific classification of haematopoietic cell proliferative disorders allowing for improved and informed treatment of patients
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent tidistinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berlin K, Braun A, Distler J, Guetig D, Glebs A, Piepenbrock C, Adorjan P, Grabs Lewin A, Lipscher E, Maier S, Model F, Schwope I, Ziebarth H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes a method for detecting differentiating between haematopoietic cell proliferations associated with at least 1 gene and/or their regulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8056 BP; 3711 A; 371 C; 371 G; 3603 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               differentiating between haematopoietic cell proliferative disorders associated with at least 1 gene and/or their regulatory regions in a subject. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least 1 reagent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 28; SEQ ID NO 240; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-018942/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200277272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAR-2001; 2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-MAR-2002; 2002WO-EP003401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (EPIG-) EPIGENOMICS
                                                                                                                                                          1564
sapiens.
                                                                                                                                                                                            65
                                                                                                                                                                                                                                                                                                                248;
                                                                                                                                                                                                                                                                         ਯ
                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                         TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                             ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                                                    AGTITITITAAATITITTATAAAATAATITITITGCATGAAATIGITITTTAAGATAAA 124
                                                                                                                                                                                                                                   CTTTAAACCTCGTAAAGTTTTTGGTCTTACCCAACCCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                          ATTTTTTAAAAAAATAATTTTÄTTTAAAAAATTTTTTTAACGTATTTATATTTTTATATTTA 1505
                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                8.8%;
                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                    Score 62;
Pred. No.
                                                                                                                                                                                                                                                                                                                Mismatches 285;
                                                                                                                                                                                                                                                                                                                                      0.054;
                                                                                                                                                                                                                                                                                                                                                      DB 8; Length 8056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Howe A, M
B G, Lesche
Mueller V,
                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   · Otto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mueller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 teu
to T,
                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reagent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ħ
                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pelet C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                that
                                                                                                                                                                                                                                                                             64
```

245 TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG

á

ð

ર્ ₽ Ş

```
RESULT 6
ABK39936
ID ABK3
XX ABK3
AC ABK3
XX Huma
XX Huma
XX Huma
XX Huma
XX Huma
XX Homo
XX H
The invention relates to a nucleic acid comprising a sequence at least 18 CC bases in length of a segment of the chemically pretreated DNA of genes associated with pharmacogenomics according to one of the sequences of the genes of the genes ald with pharmacogenomics according to one of the sequences of the genes Alde (NM_000693), CYP11A (NM_000781), CYP1B1 (NM_000497), CYP3A3 CC (NM_002538), TXNRDI (NM_001901), EPHX2 (NM_001992), OCLN (NM_002538), TXNRDI (NM_001390), NM_001992, NM_001902, NM_001903, NM_001996, NM_001996, NM_001990, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New nucleic acid, oligonucleotides and peptide nucleic acid-oligomers, useful for detecting cytosine methylation state of genes associated with pharmacogenomics and for therapy of diseases e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; ds; bisulphite treatment; CpG; DNA methylation; cancer; tumour; cytostatic; ALDH6; CYP11A; CYP11B1; CYP3A3; DPYD; EPHX2; OCLN; TXNRD1; UGT8; MRP; pharmacogenomics; SNP; single nucleotide polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 17; 24pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JUN-2000; 2000DE-01032529
01-SEP-2000; 2000DE-01043826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-154757/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JUN-2001; 2001WO-EP007470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200202806-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human chemically pretreated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK39936 standard; DNA; 11422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTTCGAATATCGAAAAAAATATTAAAAAAACGAATATATAACGTTTTAAAAACGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATAATTACGTAACGTTTTTTTTTTTTTCGAAAAATTATTTTATTATTAAAAAAATTAA 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAGTACTTGTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTTGACATCAAAATT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ÅG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence #9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  strand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1092
```

```
밁
                        5
                                                    B
                                                                                Ş
                                                                                                                 밁
                                                                                                                                            S
                                                                                                                                                                           밁
                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ភភភភភភភភជ្ជ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oligomers may also be used as PCR primers. The set of 87 nucleic acid and their complements is useful for diagnosis and therapy of solid tumours and cancer. The present sequence represents one the 87 DNA sequences or its complement. Note: The sequence data for this patent not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11422 BP; 3867 A; 59 C; 1786 G; 5710 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ftp.wipo.int/pub/published_pct_sequences
                                                       7676
                                                                                                                    7616
                                                                                                                                                                                                                                        7499
                                                                                                                                                                                                                                                                                                 7439
                                                                                                                                                                                                                                                                                                                                                            7383
                                                                                                                                                                                                                                                                                                                                                                                                                       7323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7207
                                                                                                                                                                             7559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7267
                                                                                                                                                 426
                                                                                                                                                                                                                                                                    306
                                                                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                          GCTTGGCAAGATTCCATAAGTTTATTT
                                                                                                                                                                           TTTAGAATTATGTGAGATAGTATTTAATTGTATTAGAATTT---ATTAAAAGAAAAACGA
TATAGATTTAATATTTTATTTATTT
                                                       ATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTAACTGGAAAGGAAAAGGCTTATTG
                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGTTÄGTÄAATTTTTÄATTTTAAATÄAAÄÄTTTÄGTTTTTTAAAAATTTAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTTTTTTAAATTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTAAGATAAAA 125
                                                                                                                 AGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTA
                                                                                                                                                                                                                                        GTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTT
                                                                                                                                                                                                                                                                                                 TGTTTTTATTTTAATATTAAATATTATTTTTGATAAGTAAATTGATTTAAATTTAGATAT
                                                                                                                                                                                                                                                                                                                              ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGT
                                                                                                                                                                                                                                                                                                                                                          TTTAAAAATTTAATTTTTAAAAATTAGAATGGTTTGAATTTTAAAT----AAAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                        TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTTGTTATTTTTTTTTTTGAAAGTTATTGTTATAATAGTTTAGTATTT----TTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8.6%;
48.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 60.6;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                          572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 097 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 11422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acide
                                                                                                                                                                             7615
                                                                                     545
                                                                                                                    7675
                                                                                                                                               485
                                                                                                                                                                                                          425
                                                                                                                                                                                                                                                                    365
                                                                                                                                                                                                                                                                                                 7498
                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7266
                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65
```

```
RESULT 7
ABL32218
ID ABL3
XX
AC ABL2
XX
DT 26-1
XX
DW Hum
KW Hum
KW ant
KW nev
KW ant
                          antiarteriosclerotic; antianaemic; cytostatic; nootropic; neuroprotective; anti-HIV; anticonvulsant; ophthalmological; antirheumatic; antiarthritic; antidiabetic; antipsoriatic; antiinflammatory; cancer; eye disease; arteriosclerosis; anaemia; acute myeloid leukaemia; Alzheimer's disease; AIDS; epilepsy; neurofibromatosis; rheumatoid arthritis; psoriasis; bowel disease
                                                                                                                                                                                                  Human; immune system disease; cytosine methylation; antiasthmatic;
                                                                                                                                                                                                                                                          Human immune system associated gene SEQ ID NO: 191.
                                                                                                                                                                                                                                                                                                                                                                          ABL32218;
                                                                                                                                                                                                                                                                                                                  26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL32218
                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
                                                                                                                                                                                                                                                                                                                  (first
```

disease;

gene;

```
밁
                                                                                                       Ş
                                                                                                                          В
                                                                                                                                                 Ś
                                                                                                                                                                          멍
                                                                                                                                                                                             δ
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                      á
                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JUN-2000; 2000DE-01032529.
01-SEP-2000; 2000DE-01043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2001; 2001WO-EP007537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200200928-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides a number of human immune system associated genes which are modified by the methylation of cytosines. The sequences can be used in the diagnosis and treatment of immune system disorders, including eye diseases such as retinopathy, neovascular glaucoma and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acid o
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 11422 BP; 3867 A; 59 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                  7207
                                                                                                                                7499
                                                                                                                                                                             7439
                                                                                                                                                                                                                           7383
                                                                                                                                                                                                                                                                                                                      7267
                                                                                                                                                      306
                                                                                                                                                                                                    246
                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                              126
              486
                                                                                                                                                                                                                                                                                                                                                                                                                 272;
                                                                                                                                                                                                                                                                                                                                            66
                                                                                                                                                                                                                                                                                                                                                                                          σ
                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPIGENOMICS AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Piepenbrock
                                                                                                                                                                                                                                                                                              TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC 185
                                                                                                                                                                                                                                                                                                                      GATTTGTTATTTTTTTTTTTATTTGAAAGTTÄTTGTTATAATAGTTTTAGTATTT----TTAAA
                                                                                                                                                                                                                                                                                                                                    AGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTA
                                                                                                                               GTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTT
                                                                                                                                                                              TGTTTTTATTTTAATATTAATATTATTTTTGATAAGTAAATTGATTTAAATTTAGATAT
                                                                                                                                                                                                   ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGT
                                                                                                                                                                                                                                                                         TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA
TTTAGAATTATGTGAGATAGTATTTAATTGTATTAGAATTT
                                                                                                                                                                                                                           TTTAAAAATTTAATTTTTAAAAATTAGAATGGTTTGAATTTTAAAT----AAAAATTTT
                                                                                                                                                                                                                                                 TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT
                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             comprising
d treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NO 191; 32pp + Sequence Listing; German.
                                                                                                                                                                                                                                                                                                                                                                                                                           8.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fragment of of diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                            Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 60.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1786 G; 5710 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chemically associated
                                                                                                                                                                                                                                                                                                                                                                                                                             No.
                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6;
).097;
                                                                                                                                                                                                                                                                                                                                                                                                                  284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified gene,
with abnormal 
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 11422;
                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                      ---ATTAAAAGAAAAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               abnormal cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                   11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful
                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for
                                                                                                                                                                                                                                                                                                                                               125
                                                                                                                                                                                                                                                                                                                                                                      7266
                                                                                      7615
                                                                                                                                                                                  7498
                                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                             7382
                                                                                                                                                                                                                                                                                                                                                                                             65
                                         7675
                                                               485
                                                                                                             425
                                                                                                                                    7558
                                                                                                                                                           365
                                                                                                                                                                                                        305
                  545
                                                                                                                                                                                                                                                                                                                                                                                                                   ω
```

```
RESULT 8
ACN47472/c
ID ACN47472
           Ş
The invention relates to 17880 cotton expressed sequence tags (ESTs; CC ACN45220-ACN63099). The ESTs were isolated from cDNA libraries generated control of the control of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated nucleic acid molecule that encodes a plant protein or its fragment, useful for isolating a variety of agronomically significant genes associated with plant growth, quality or yield, and as molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cotton; plant; EST; expressed sequence tag; transgenic plant; seed; variety DP50B; library LIB3825; molecular tag; molecular marker; genetic mapping; molecular mapping; seed germination; plant growth; plant quality; plant yield; plant breeding; tissue printing; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cotton primed seed EST Clone ID:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACN47472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (FINC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-DEC-2001; 2001US-00021323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2004123340-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Deikman J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-DEC-2000; 2000US-0255619P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ZIEG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7676 AAAAAAAGAAAAACGATAATGTTTTGTTGAATATTTTAATTATTAATAAAAATTTTGAGA 7735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004-479808/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to map genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FENG P C C
FINCHER K
ZIEGLER T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEIKMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATAGATTTAATATTTTATTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTGGCAAGATTCCATAAGTTTATTT 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 2253; 34pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Feng PCC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mг
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fincher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LIB3825-011-Q1-N6-C9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ziegler
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ: 2253.
```

```
RESULT 9
ABV60941/c
ID ABV609
XX ABV609
XX ABV609
XX Human |
XX Human |
XX Human |
XX Homo s
PN W02001
XX W02001
XX Homo s
PN W02001
XX Homo s
XX Homo s
PN W02001
XX W02001
XX Homo s
PN W0201
XX Homo s
XX Human |

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           និង្គិតិនិង្គិនិង
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                               Novel isolated nucleic acid mol prostate cells and correlating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present sequence represents a specifically claimed EST isolated from a cotton variety DP50B primed seed cDNA library (LIB3825). The sequence data for this patent did not form part of the printed specification, k was obtained in electronic format directly from the US patent office a
                                                                                                                                                                                                                                                                                                                                                                                              25-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                    16-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                             17-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200160860-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pharmacogenomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human prostate expression marker cDNA 60932.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABV60941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      seqdata.uspto.gov/sequence.html?DocID=US20040123340
                                                                                                                                                                                                                                                                     (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                        detecting
                                                                                                                                                                        2001-662795/76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                prostate
                                                                                                                                                                                                                        ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; cDNA; 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT 310
                           Page 11585; 11750pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATTATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTTATTAATTTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      560 BP; 268 A; 7 C; 48 G; 237 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0183319P.
2000US-0189862P.
2000US-0207454P.
2000US-0211314P.
2000US-0211319.
2000US-0255281P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                        Endege WO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US005171.
                                                                        presence of prostate cancer,
                                                                      nucleic acid molecule associated with cancerous state of and correlating with presence of prostate cancer, useful presence of prostate cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     marker; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic; carcinogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 60.4;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 13;
.097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pharmacodyanamic marker;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                рJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

```
RESULT 10
ACN46935
ID ACN46936
XX ACN46
XX COLLO
DE COLLO
XX GOSSY
XX GOSSY
XX US200
XX US200
XX I1-DE
XX I1-DE
XX I1-DE
XX (PENC
PA (DEI)
PA (DEI)
PA (EINC
PA (ZIEC
XX PA (ZIEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 134; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV00010-ABV62213) of the specification or its complement. (I) is useful for: (a) assessing whether a patient is afflicted with prostate cancer; (b) monitoring the progression of prostate cancer in a patient; (c) assessing the efficacy of a test compound to inhibit prostate cancer in a patient; (d) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient; (e) selecting a composition for inhibiting prostate cancer in a patient; (f) assessing the prostate cancer has metastatized in a patient; (f) assessing the aggressiveness or indolence of prostate cancer in a patient; (l) assessing the aggressiveness or indolence of prostate cancer in a patient; (l) is also useful as a pharmacodyanamic or pharmacogenomic marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cotton; plant; EST; expressed sequence tag; transgenic plant; se variety DP50B; library LIB3825; molecular tag; molecular marker; genetic mapping; molecular mapping; sed germination; plant grow plant quality; plant yield; plant breeding; tissue printing; ss.
                                                                                                                                   (FENG/)
                                                                                                                                                                                                                                                                                               12-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                         US2004123340-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cotton primed seed EST Clone ID: LIB3825-005-Q1-N6-D10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 626 BP; 356 A; 15 C; 41 G; 130 T; 0 U;
  WPI; 2004-479808/45
                                                       Deikman
                                                                                                                                                                                                                                          14-DEC-2000; 2000US-0255619P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACN46935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                         DEIKMAN J.
FENG P C C.
                                                    Ç
                                                                                                       FINCHER K L.
ZIEGLER T E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard; cDNA; 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAA 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATAGAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTTTTGGGTTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8.5%;
milarity 48.0%;
Conservative
                                                  Feng PCC,
                                                                                                                                                                                                                                                                                               2001US-00021323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                              ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                    Fincher KL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. v...
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 60.2; DB Pred. No. 0.11;
                                                    Ziegler TE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      plant growth;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ:1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

RESULT 11
ABZ10100
ID ABZ10 CC ACMASCO-ALMASONY). The ESIS well account these period or non-primed seeds from variety DPSOB, mature seeds from CC variety Coker 312 Boswell 96 Field, and androecium tissue, gynoecium CC tissue, developing fibres, carpel walls and septa from variety CC Nucotton33B. The invention also relates to substantially purified CC proteins or their fragments encoded by nucleic acid molecules of the CC comprising a nucleic acid of the invention. The cotton ESTs are useful as CC genes, to determine gene family. The nucleic acid molecules are CC used for isolating a variety of agronomically significant genes are CC used for isolating a variety of agronomically significant genes are CC links in metabolic and catabolic pathways. The nucleic acid molecules are CC also useful for identifying genes important in initiating and maintaining CC seed germination or that may be used to mitigate stresses encountered CC agronomically significant genes are CC agronomically significant genes in the ESTs additionally enable the acquisition of CC and also permits the acquisition of molecular markers useful in breeding cand malso permits the acquisition of molecular markers useful in breeding significant genes. The nucleic acid molecules are further useful for CC detecting the expression level or pattern of a protein or mRNA and for detecting the expression level or pattern of a protein or mRNA and for conton variety DPSOB primed seed cDNA library (LIBBSE). The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from the US patent office at a protein or mRNA and so conton variety DPSOB primed seed cDNA library (LIBBSES). Ş В Ş В δ 밁 8 밁 δ RXRX Matches 144; Query Match Best Local Similarity New isolated nucleic acid molecule that encodes a plant protein or its fragment, useful for isolating a variety of agronomically significant genes associated with plant growth, quality or yield, and as molecular tags to ACN45220-ACN63099). The Sequence 499 BP; 212 A; 32 C; 62 G; 193 T; 0 U; 0 Other; seqdata.uspto.gov/sequence.html?DocID=US20040123340 16-JAN-2003 ABZ10100 ABZ10100 standard; 485 154 425 305 94 34 map genes. SEQ ID NO 1716; 34pp; English TAGTACTTGTTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATT GGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGA <u> Адададададададададададададададададада</u>САДАДАДАДАДАДА TGTAAFTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTT Conservative (first DNA; 8056 BP 8.5%; to 17880 cotton expressed sequence tags (ESTs; he ESTs were isolated from cDNA libraries generated imed seeds from variety DP50B, mature seeds from 0; Score 60; Pred. No. Mismatches 0.11; DB 13; Length 499;

140;

Indels

٥,

Gaps

588

130 2168 70

2228

273 544 213

```
differentiating between hashed non-methylated CPG which distinguishes between methylated and non-methylated CPG which distinguishes between methylated and non-methylated CPG which distinguishes between methylated and non-methylated CPG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 CPG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 CPG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 CPG dinucleotides within the target nucleic acid. ABZ09861 to ABZ1118 CPG differentiating between healthy hasmatopoietic cells and proliferative disorder hasmatopoietic cells; for differentiating between acute CPG lymphoytic laukaemia and acute myslogenous laukaemia; as probes for CPG determining the cytosine methylation state and/or single nucleotide cPg lymprophisms (SNPs) of hasmatopoietic cell proliferation disorder cell amplification of hasmatopoietic cell proliferation disorder related BQM amplification of hasmatopoietic cell proliferation disorder related DNA ceguences. The nucleotide sequences from the present invention can also be used for detecting a predisposition to, differentiation between complements; and as primers for the hasmatopoietic cell proliferative disorders. The present method enables a highly specific classification of hasmatopoietic cell proliferative disorders. The present method enables a display specific classification of hasmatopoietic cell proliferative disorders of hasmatopoietic cell proliferative call proliferative disorders. The present method enables a display specific classification of hasmatopoietic cell proliferative call prolife
                                      Ś
                                                                                   밁
                                                                                                                       Ś
                                                                                                                                                                         밁
                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; haematopoietic cell proliferation disorder; cytostatic; gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia; cytosine methylation state; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detecting and differentiating between hematopoietic cell proliferative disorders, comprises contacting a target nucleic acid with a reagent the distinguishes between methylated and non-methylated CpG dinucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Haematopoietic cell proliferation disorder related DNA sequence #240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-018942/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (EPIG-) EPIGENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2001; 2001US-0278333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2002; 2002WO-EP003401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200277272-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lewin
                                                                                                                                                                                                                                                                                                                                                                                           disorders allowing for improved and informed treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           present invention describes
                                                                                                                                                                           2109
                                                                                                                                                                                                                    11
                                                                                                                                                                                                                                                               l Similarity
272; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Piepenbrock C, Adorja
Lipscher E, Maier S,
                                                                                                                                                                         ATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTT
                                                                                                                                                                                                                                                                                                                                                   8056 BP;
TTTAAATTTTTATTATAAAAAAAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTG
                                          ACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAA 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 240; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Braun A,
                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                   3711 A; 371 C; 371 G; 3603 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                      8.4%;
44.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Distler J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tler J, Guetig D,
Adorjan P, Grabs
Waier S, Model F,
                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                 Score 59.4; DI
Pred. No. 0.16,
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a method for detecting and
                                                                                                                                                                                                                                                                                            .16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Howe A, ... G, Lesche R, ...
                                                                                                                                                                                                                                                                                                               DВ
                                                                                                                                                                                                                                                                                                            8;
                                                                                                                                                                                                                                                                                                            Length 8056;
                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mueller J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ħ
                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               that
```

```
RESULT 12
ABK31495
ID ABK31
XX ABK31
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                      Oligonucleotide for diagnosis and therapy of diseases associated with signal transduction e.g. cancer, comprises chemically modified genomic sequences of genes associated with signal transduction.
                                                                               Claim 1; SEQ ID NO 338; 24pp; English
                                                                                                                                                                                                                                                         WPI; 2002-147896/19
                                                                                                                                                                                                                                                                                                           Olek A,
                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUN-2000; 2000DE-01032529.
01-SEP-2000; 2000DE-01043826.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; signal transduction associated gene; cytosine methylation state; CpG island; signal transduction associated disease; solid tumour; cancer; antitumour; cytostatic; mutant; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Signal transduction associated gene modified complementary DNA #169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JUN-2001; 2001WO-EP007472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200200926-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK31495 standard; DNA; 15954 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                     (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       491
                                                                                                                                                                                                                                                                                                                                                                     EPIGENOMICS
                                                                                                                                                                                                                                                                                                           Piepenbrock C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTTTAAA 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAGATTCCATAAGTTTATTTCACCAAAAAGGGAAAGAGTACTTGGCCCTTGCTCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGITITITCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTTTAA 2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                     გ
G
                                                                                                                                                                                                                                                                                                              Berlin K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           250
```

```
δ
                                                                                                                                                  밁
                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                            á
吊
                               Ş
                                                                        밁
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cc modified using a solution of bisulphite, hydrogen sulphite or disulphite. Also disclosed are oligonucleotides and/or PNA oligomers for detecting ct the cytosine methylation state (CpG islands) of these genes, and a method CC for the diagnosis and/or therapy of genetic and epigenetic parameters of contained from cells or cellular components which contain DNA, e.g. cell clines, biopsies, blood, sputum, stool, urine, cerebral-spinal fluid, ctissue embedded in paraffin such as tissue from eyes, intestine, kidney, cc tissue embedded in paraffin such as tissue from eyes, intestine, kidney, cc transduction prostate, lung, breast or liver, histologic object slides, and all their possible combinations. The sequences of the invention are cuseful for the diagnosis and therapy of diseases associated with signal transduction, or their complementary sequences. Note: The sequence data for this patent did not form part of the printed compensation, but of the printed in electronic format directly from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15954 BP; 4759 A; 139 C; 3187 G; 7869 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   European
                                                                                                                                                    11925
                                                                                                                                                                                                                                                                                                     11805
12043 TAATATTATTTATT 12057
                                                                                                                                                                                                                             11865
                                                                                                                                                                                                                                                                                                                                                                             470
                                                                                                                                                                                                                                                                                                                                                                                                       230 AAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                          ATTGAGTAATAAATAAATATAGAAAGTGAACAAAAAAAATTAGTGGAAAAGGTAACTGGA
                                                                                                                                                TTAGAGTT -- AATGAAATCGGAATAATTAAGGGAGTTATTTTACGTGAGAAGAGATTAGT
                                                                                                                                                                                                                                                              AATTTATTAATTTTTTAGTACTTGTTTTTTCTTTTTTTGGGTTCAACTAGTTACTTTTTTCC 409
                                                                                                                                                                                                                                                                                                                                      ATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent Office
                                   AAGAAAAGGCTTATT
                                                                                                                                                                                   TTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAAT
                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8.4%;
                                     544
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 59.4; DB 6;
Pred. No. 0.16;
0; Mismatches 151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 15954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                   11864
                                                                                                                                                                                                                                                                                                                                          349
                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                             529
                                                                                                                                                  11982
                                                                                                                                                                                       469
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲.
```

```
30-JUN-2000; 2000DE-01032529
01-SEP-2000; 2000DE-01043826
                                      29-JUN-2001; 2001WO-EP007471
                                                                           WO200202807-A2
                                                                                              Unidentified
                                                                                                              Cell signalling; cytosine methylation; cell signalling disease; cancer; tumour; cytostatic; ds.
                                                                                                                                          Chemically treated cell signalling DNA sequence complementary to#179.
                                                                                                                                                               01-JUL-2002
                                                                                                                                                                                                     ABL70468 standard; DNA; 15954 BP.
                                                         10-JAN-2002
                                                                                                                                                               (first entry)
```

The present invention relates to chemically modified DNA sequences of signal transduction associated genes. The DNA sequences are chemically

Ą

```
RESULT 14
ADQ2485/C
ID ADQ248
XX ADQ248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a nucleic acid comprising a sequence of at least CC 18 bases of a segment of chemically pretreated DNA of genes associated CC with cell signalling. The activity of the modified sequences of the CC invention may be described as cytostatic. The object of the invention is to provide the chemically modified DNA of genes associated with cell CC signalling, as well as oligonucleotides and/or PNA-oligomers for CC detecting cytosine methylations, as well as a method which is CC particularly suitable for the diagnosis and/or therapy of genetic and CC epigenetic parameters of genes associated with cell signalling. The CC chemically modified DNA provided by the invention is useful for diagnosis CC and therapy of diseases such as solid tumours and cancer. The sequences CC given in records ABL70111-ABL70626 represent chemically pre-treated CC genomic DNA's of genes associated with cell signalling. Note: The Sequence data for this patent is not represented in the printed CC specification, buffis based on sequence information supplied by the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acid, useful for diagnosis and therapy of diseases associated with cell signaling e.g. cancer, comprises chemically modified genomic sequences of genes associated with cell signaling.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 358; 24pp + Sequence Listing; English
                                                                                                                                                                                                                                                           ADQ24856 standard;
                                                                                                   Human soft tissue sarcoma-upregulated DNA - SEQ ID 7676.
                                                                                                                                                                                                           ADQ24856;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 15954 BP; 4759 A; 139 C; 3187 G; 7869 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    European Patent Office
                                soft tissue
ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-154758/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                              TAATATTATTTATT 12057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATC 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTGAGTAATAAATAATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTAACTGGA 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAAAAGGCTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTAGAAAATATGAAAAGGAAAATAGTATATAATTAAAATGAGTAAAAATATTAAAAAGTT 12042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTAGAGTT - - AATGAAATCGGAATAATTAAGGGAGTTATTTTACGTGAGAAGAGATTAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTTATTAATTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCC 409
                                                     sarcoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                     cytostatic;
                                                                                                                                                                                                                                                              6816
                                                                                                                                                                                                                                                                                                                                                                                                                                            544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Berlin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 59.4;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ~
                                                     gene therapy; vaccine; screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; DB 6;
0.16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 15954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                          human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11864
```

Ş 밁 Ş B Ś 멍 Ś 망 á В Ś

```
Ş
                                                                  밁
                                                                                                 Ś
                                                                                                                                     밁
                                                                                                                                                                     á
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 186; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel method for detecting soft tissue sarcoma which comprises obtaining a first soft tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of the gene in both soft tissue samples and comparing the expression in the first soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Early detection of soft tissue sarcoma comprises determining expression of a gene in a first soft tissue sample and a normal soft tissue sample and comparing the gene expression, also useful in treating soft tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 6816 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 2; SEQ ID NO 7676; 210pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-441208/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aziz N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-NOV-2002; 2002US-0429739P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-NOV-2003; 2003WO-US038193.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2004048938-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (PROT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         specification per se but was submitted in CD format by the inventor.
                                                                                                                                                                                                         6473
                                                                                                                                                                                                                                                                                                                                                                                                                     6653
                                                                    6363
                                                                                                                                                                                                                                                                              6533
                                                                                                                                                                                                                                                                                                                                                6593
305
                                                                                                                                                                                                                                          185
                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                                                                  65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEIN DESIGN LABS INC.
                                                                                                                                                                                                                                                                                                                                                AGTTTTTTAAATTTTTTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                                                                   Ginsburg
                                                                                                                                                                                                                                                                            ATTITGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                 TGTAATTAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTT
                                                                                                                                     AAANAAAANTNAAAATATTTTTTTTTTTTTTTTT----TTNCCNNAAAAAATAATAATAA
                                                                                                                                                                                                                                          CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTTAAATTTGGGAAAATTTAATAATATGTATTAAATGCCAAATAAAAGTTAGATGAG
                           TAGTACTTGTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                       TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG 304
                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ĭ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2121 A; 1327 C; 1578 G; 1571 T; 0 U; 219 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zlotník A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 59.2; DB 12; Length Pred. No. 0.17; o, Mismatches 222; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 6816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12;
```

Gaps

2

64

6474

244

6306

424

364

```
ABL55644
ABL5 XX
AC ABL5
XX ARE
XX ARE
DT O1-3
DT O1-3
DX ARE
XX 
   á
                                                                    밁
                                                                                                                             δ
                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                          Query Match 8.4%;
Best Local Similarity 54.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   particle, or by transfection, transduction, or injection either in vitro or in vivo. The vector is useful for the delivery and expression of biologically useful proteins in gene therapy protocols, and for delivering large DNA segments for engineering of vertebrate cells. Polynucleotides of the invention have applications in techniques such as their use as insertion sites for foreign genes of interest, hybridisation probes, for chromosome and gene mapping, in PCR technologies, and in the production of sense or antisense nucleic acids. Vectors of the invention provide for stable integration and expression of heterologous DNA in host cells, and are adapted for accepting large heterologous polynucleotide inserts which can be delivered in an infected or transformed cell and expressed in a stable fraction. The current sequence represents a fragment of the genome of the genus B entomopoxvirus from amsacta moorei (AmEPV)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 comprising a polynucleotide encoding a protein operably linked with a heterologous promoter sequence. The invention also concerns methods for providing gene therapy for genetic deficiency disorders. Vectors of the invention are useful for delivering a polynucleotide encoding a protein to a vertebrate cell preferably a mammalian cell, such as a human cell. The vector is introduced into the vertebrate cell by infection in a viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel recombinant entomopox virus vector useful for delivering polynucleotide encoding protein to vertebrate cell, comprises polynucleotide encoding protein operably linked with heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 50000 BP; 20514 A; 4505 C; 4614 G; 20367 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 150-175; 326pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-AUG-2000; 2000US-0224479P.
14-SEP-2000; 2000US-00662254.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a recombinant entomopox virus (EPV) vector,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-227161/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Moyer RW, Li Y, Bawden AL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-AUG-2001; 2001WO-US025287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200212526-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AmEPV; gene therapy; viral vector; chromosome mapping; gene mapping; genetic deficiency disorder; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AmEPV genome fragment#2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL55644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL55644 standard; DNA; 50000 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYFL ) UNIV FLORIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Amsacta moorei entomopoxvirus.
                                                                                                                                        320
                                                                                                                                                                                                                                                                                                                                             138;
TTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGG 439
                                                                                                                                                                                                                                                TTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTA 319
                                                            TGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTC 379
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                             ,
                                                                                                                                                                                                                                                                                                                                                                             Score 59.2; DB 6;
Pred. No. 0.18;
                                                                                                                                                                                                                                                                                                                                             Mismatches 113;
                                                                                                                                                                                                                                                                                                                                                                                                          Length 50000;
                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                49214
```

Search completed: November 17, 2005, 15:59:37
Job time : 479 secs

This page Blank (Uspro)

٠,

```
Minimum
Maximum
                                                                                                                                                                                               Result
                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match
Maximum Match
Listing first
იიი
                                                                  0000
                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM nucleic - nucleic search, using sw model
                                                                                                                                                                                         ö
23211111110987654
432111111110987654
                                                                                                                                                                                                                            and is
                                                                                                                                                                                                                                           Pred. No.
                                                                                                                                                                                                                                                                                                                                                                           B B
                                                                                                                                                                                        Score
       seq
                                                                                                                                                                                                                            No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                         length: 0
length: 2000000000
                                                                                                                                                                                       Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                           IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                November 17, 2005, 14:59:33 ; Search time 3117 Seconds
(without alignments)
8609.339 Million cell updat
                                                                                                                                                                                                                                                                                                                                                                                                             34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-810-788A-4
       aagcttttaaatttgggaaa.....tctgtggtcacttgaatacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Copyright
                                                                                                                                                                                                                                                          gb_est6:*
gb_gss1:*
gb_gss2:*
                                                                                                                                                                                                                                                                               gb_est3:*
gb_est4:*
gb_est5:*
                                                                                                                                                                                                                                                                                                     gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                     gb_est1:*
11201
11001
11001
11001
11001
11200
1896
1898
11001
11001
11001
11001
11001
11001
11001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version (c) 1993 - 2005
                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                            100%
45 gr
                                                                                                                                                                                                                                                                                                                                                            9
                                                 CNS07JUX
CNS03NK1
CG750135
CNS036A2
CNS00DKY
                                                                                      CNS01U90
CNS0039G
CNS010MP
CNS016CO
CR722884
CNS00DKY
CNS00EVI
CNS00EVI
BH177277
      CNS003BD
CD387645
                    CV484987
CNS003BB
AG579614
CNS001FB
                                                                                                                                                         CNS00EVL
CNS00EO7
                                                                                                                                                                                        ö
                                                                                                                                                                         CNS0161D
                                                                                                                                                                                                                                                                                                                                            summaries
                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                 68479088
                                                                                                                           AL106578
                                                                                                                                                         AL069706
AL069440
                                                                                                                                                                                       Description
                                                                                                                                                                         AL106171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell updates/sec
                                                                                                                           1 Drosophil
5 Drosophil
0 Drosophil
1 Tetraodon
1 Drosophil
3 Drosophil
3 Drosophil
                           Drosophil
                                         Tetraodon
Drosophil
AGENCOURT
                                                                       Drosophil
7 008 L 22-
7 end of
Tetraodon
      Drosophil
AGENCOURT
                     Drosophil
                                                                                                       Drosophi
                                                                                                            Drosophi
                                                                                                                      Tetraodon
                                                                  P044-3-D0
```

	n		C	a	n	o	n		n	a	a				n		a	a	
4 4 5 4	43	42	41	40	39	38	37	36	35	34	ω G	32	31	30	29	28	27	26	25
61.6	61.8	61.8	61.8	61.8	62	62	62.2	62.2	63	63	63	63.2	63.6	63.8	64	64.2	64.2	64.2	64.8
8.7		8.8	8.8	8 8	8 8	8.8	8.8	8.8	8.9	8.9	8. 9	9.0	9.0	9.0	9.1	9.1	9.1	9.1	9.2
1190	1101	987	836	646	1210	709	888	752	1201	888	625	1101	1201	940	1156	1542	1043	1001	1168
φ ω	φ	9	9	7	9	7	7	7	9	œ	9	9	9	9	9	9	9	9	φ
CNS02ON7	CNS00EPO	CNS014PQ	CNS01100	CF547155	CG749728	CV480279	CK156432	CF519392	CNS015ZZ	AZ549422	CNS036A2	CNS0039G	CNS0167M	CNSOOLDH	AG396050	AG386981	CNS0145P	CNS01400	CL078758
CK667281 Tetraodor AL206908 Tetraodor			AL099642 Drosophil	CF547155 AGENCOURT	CG749728 P044-1-C0	CV480279 AGENCOURT	CK156432 FGAS03740	CF519392 AGENCOURT	AL106121 Drosophil	AZS49422 ENTDP49TF	AL229763 Tetraodon	AL063921 Drosophil	AL106396 Drosophil	AL067978 Drosophil	AG396050 Mus muscu	AG386981 Mus muscu	AL103735 Drosophil	AL103554 Drosophil	CL078758 CH216-153

ALIGNMENTS

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 1
CNS0161D/c
LOCUS
  밁
                                     8
                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                  Matches
                                                                                                      Best
                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                        source
                                                                                                      Local
165;
                                                                                                                                                                                                                                                                                                                                                                                            - Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Buropean Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk -. This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Bilaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster 1225 bp DNA linear GSS 26-JUL-1999 BACNISCI8 of DrosBAC library from Drosophila melanogaster (fruit fly), genomic survey sequence.

AL106171.1 GI:5620504
GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Drosophila melanogaster
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha,
Ephydroidea, Drosophilidae, Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage : BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genoscope.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSS.
                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 1225)
                                                                                                                                                                                    /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db xref="taxon.7227"
/clone="BACN15C18"
/clone lib="DrosBAC"
/plasmid="pBeloBAC11"
/note="end : SP6"
                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                      10.6%;
                                                                              Score 75; DB 9
Pred. No. 0.001
29; Mismatches
                                                                                                    DB 9; Length 1225; 0.0013;
                                                                                  <u>..</u>
                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    part of a
                                                                                  0
```

```
RESULT 2
CNS00EVL/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
           FEATURES
                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POCAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
Web : www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                245 TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Eukaryota; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNSODEVL 1101 bp DNA linear GSS 04-JUN-1999 Drosophila melanogaster genome survey sequence T7 end of BAC: BACR29B23 of RPCI-98 library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fi
                                                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AL069706.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTGGCAAGATTCCATAAGTTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RTAWTRRDARRKGGAGGTTAATTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RAAAAAAAAGADARAAARAARGAGAGGGGGGGGRRGGAARRDWAKAANGAWK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DDTTWNKTKTMTTHTTKDMKMKMGWMNNMMMVMGGMTRTKTKKTTKKDGRRRMGGWTDTDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MMMGGBGGKGGGTTTTTKKTTTKTTKTTTTGMGATTTTTAAATTTTTNRTDTTWARAAAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RAATWWWTTTTTTTTTTTTTTTTATATTTTTTTTTTTMYHHTYTYMTTHMHHMMMMMMHM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WAWAWTTTTTTRAAAWWTWTTTTTTTTWWTTTAAWAAWTWWTTATWTRTTTWTRTRRRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:4949849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184
```

REFERENCE AUTHORS TITLE

Genoscope

(bases 1 to

JOURNAL

Direct Submission Submitted (02-JUN-1999) BP 191 91006 EVRY cedex

Genoscope
- FRANCE

e - Centre (E-mail :

National de Seque segref@genoscope

Sequencage

```
RESULT 3
                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                       SOURCE
                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                  KEYWORDS
                                                                                                                                                 FOCUS
                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                  445
                                                                                                                                                                                                                                                                       505
                                                                                                                                                                                                                                                                                                                                                     428
                                                                                                                                                                                                                                                                                                                                                                               625
                                                                                                                                                                                                                                                                                                                                                                                                        368
                                                                                                                                                                                                                                                                                                                                                                                                                                  685
                                                                                                                                                                                                                                                                                                                                                                                                                                                           308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 TTTTTTAAATTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATT
Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                  fly), genomic survey sequence.
ALO69440
ALO69440.1 GI:4949583
GSS.
                                                                                                                       Drosophila melanogaster genome su:
BACR29P01 of RPCI-98 library from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 TAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGT
                                                                                                                                                 CNS00E07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGG 551
                                                                                                                                                                                                                                                                                                                                                   KKKG 442
                                                                                                                                                                                                                                                                                                TACTTGTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WWWTWTTTTWATTWATTWATTWTTTWWAWATTWWKKKKKKAWADTGAGARATKTDKKK
                                                                                                                                                                                                                                                                                                                            ATWTATTWWTTTAAATTATWTTTTTTTTTTAWAWWWWAAAWATWAWWWWWAAAAAW
                                                                                                                                                                                                                                                                                                                                                                                                                                  TAMACCTCGTAMAGTTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAMACGACCATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TWATATTAWATTTTTTWTWTATTWWTATATWATWWTATWTWTWTTTWATWTATTTTA
                                                                                                                                                                                                                                                                                                                                                                              TWAAAAATATTTTTTTATATTAATWAWATTTATAWATTAATATAWWTTWTAAATTWTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative 104; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Drosophila melanogaster"
/mol type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACK29B23"
/clone_lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 74.4; DB 9;
Pred. No. 0.0017;
                                                                                                                                                 1101 bp
                                                                                                                       survey sequence TET3 end of com Drosophila melanogaster
                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1101;
                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                   GSS 04-JUN-1999
end of BAC:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                        446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                 547
                                                                                                                                                                                                                                                                                                                             506
                                                                                                                                                                                                                                                                                                                                                      487
                                                                                                                                                                                                                                                                                                                                                                                                         427
                                                                                                                                                                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
```

```
RESULT 4
                                                                                                                                                       Ş
                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                             δ
                                                                                                                                밁
                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 202;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's Pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                  919
                                                                                                                                                                                                                                  438
                                                                                                                                                                                                                                                                                                                                     799
                                                                                                                                                                                                                                                                                                                                                                    318
                                                                                                                                                                                                                                                                                                                                                                                                     739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18 AAAATTTAATAATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAAT 77
                                                                WWKGGKGKKKTKGGGGGKGTGGGGDARAARAAKGKGTTKGTKGKTARTTTKTTTK 1097
                                                                                                                                                                 AACAAAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAGAT 557
                                                                                                                                                                                                                                                                    WATTTTTTTAWWTAAWAWTGTAATWAAATTAWWTTAAAAAWAATGWTTTWTAAATTWWGT
                                                                                                                                                                                                                                                                                                  TCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGT 437
                                                                                                                                                                                                                                                                                                                                     TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAA 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGT 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KTTTTTATWWWATATAAAAAWAATTTAATTTTWATTTTATATATTWAAWGWWAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAAC 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAWTTTTTATTTTWAAAATTGTATAAAAAAWWATTATGTATAWWAAATRTWWTGTATTK 978
                                                                                                                                                                                                                                  GGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATAGAAAGTG 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAATATWGRATATTKAAAAAAAAATAWTAAAAWARTKKTGTRTWTKWAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="RPCI-98"
/note="end : TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone="BACR29P01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="genomic DN
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organism="Drosophila melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92; Mismatches 305; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 74; DB 9;
Pred. No. 0.002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                    918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                              Ś
                                                                                                   밁
                                                                                                                                                                 밁
                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                               밁
                                                                                                                               á
                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                   Local
                                                                  185
                                                                                                   204
                                                                                                                                                                   144
                                                                                                                                                                                                  65
                                                                                                                                                                                                                                   84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CNS01U90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10899143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20296633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0835645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to
                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 524
```

```
Ś
  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AL167541
AL167541.1 GI:7805598
ACSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon respectividis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F., Saurin, W., Bernot, A. and Weisenbach, J. Characterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis Genome Res. 10 (7), 939-949 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Roest Crollius, H., Jaillon, O., Dasilva, C., Bernot, A., Fizames, C., Wincker, P., Brottien Saurin, W. and Weissenbach, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Estimate of human gene number provided by using Tetraodon nigroviridis DNA sequence Nat. Genet. 25 (2), 235-238 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tetraodon nigroviridis genome
196C24 of library G from Tetra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (12-APR-2000) Genoscope - Centre BP 191 91006 EVRY cedex - FRANCE (E-mail :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii, Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes; Tetradontoidea; Tetraodontidae; Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tetraodon nigroviridis
                                                                                                                                                                 ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                                                                                                                AGTTTTTTAAATTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAA
  ACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC 300
                                                                                                                                   CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCC----AATACCCACAAAGGTAAACG 240
                                                                                                                                                                                                                                                                                                                                                        TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Genoscope sequence ID : COAG196BB12SP1-end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Tetraodon nigroviridis"
/mol_type="genomic DNA"
/db_xref="teaxon:99883"
/clone="196C24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                      10.3%;
                                                                                                                                                                                                                                                                                                                                                                                                      43,
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 72.4; DB 9;
Pred. No. 0.0041;
                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tetraodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          survey sequence PUC-Ori end of cl
sodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brottier, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                      190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genome-wide analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bouneau,L., Fish r,P., Quetier,F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               National de Seque
segref@genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear GSS 01-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSS 01-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                      4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fisher, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequencage :
scope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                      263
                                                                                                                                                                               184
                                                                                                                                                                                                                           203
                                                                                                                                                                                                                                                                       124
                                                                                                                                                                                                                                                                                                                                                                                                      ۲,
```

Ś 밁 Ş 밁

밁

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
CNS0039G/c
                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pocas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCESSION
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - Web: www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial ECORI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's Pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACGAC Resource Center can be found at http://bacnac.med.buffalo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drosophila melanogaster genome survey sequence TET3 end of BACRO8K10 of RPCI-98 library from Drosophila melanogaster fly), genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (02-JUN-1999) Genoscope - Centre BP 191 91006 EVRY cedex - FRANCE (E-mail :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AL063921.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CNS0039G
                                                                                  WWWWWATWDTWWDKWWWWATAAKTDTAWTWWRTAWRADWAGRDRGAGKRDRDAATDADGA
                                                                                                                         AATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTATTATTT
                                      TCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTGGTC
                                                                                                                                                                         KARRWGDDTWDRDTRKDDWDWTKWWTWWKDRADDRRWAGDADRWAWDDGAGTWWTATWWW
                                                                                                                                                                                                                  CGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRRDGGRKRKDKKDRKDGDDDKKGGKKKKAAKAAKWATKWWDDWDWDKDWKWDGAKDRKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTT 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 1101)
                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       at
                                                                                                                                                                                                                                                                                                                                                                       /mol_type="genomic DNA
/db xref="taxon:7227"
/clone="baCR08K10"
/clone lib="RPCI-98"
/note="end: TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Drosophila melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:4941778
                                                                                                                                                                                                                                                              10.3%; Score 72.4; DB 9
18.5%; Pred. No. 0.0039;
tive 283; Mismatches 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1101 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA"
                                                                                                                                                                                                                                                                                                         DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                264;
                                                                                                                                                                                                                                                                                                       Length 1101;
                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             segref@genoscope.cns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               National
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          de Sequencage
enoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SSD
                                                                                                                                                                                                                                                              2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-JUN-1999
of BAC #
                                                                                                                                                                         1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       383
921
                                                                                  981
                                                                                                                             149
                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 6
CNS010MP/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              210
                                                                                                                                                                    Web: www.genoscope.cns.fr)

Determination of this BAC-end sequence was carried out as part of a collaboration with the European Drosophila Genome Project (EDGP) this://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 734)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CNS010MP 734 bp DNA linear GSS 26-JUL-19 Drosophila melanogaster genome survey sequence T7 end of BAC BACN04120 of DrosBAC library from Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSS
                                                                                                                                                  pBeloBAC11
                                                                                                                                                                                                                                                                                                                                                     Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AL099163.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RATWDRTDAWWADAAWWTTTDTDTDDWDKRDRRKKGARRRRTTARAAWDWWTWKAMDWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGTCACTTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WAAWTAAAAAAAAAATTTTTTTTTTTWAWTAAAWWTAWTWTTTTWTTTTWWAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGTAAAGATAGGAGACTCAATTTCTAGTTCATCAAAACATATTTGGCGTTATTATTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KWDWKTRADRWDRWAADTWTDARK-ADRDWAKARAWRARRDRARAARADRRWTTKGKTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTAGTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAGATTCCATAAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RKRADDKRDAADDRDDAATWTTWTTTTTRDTDDWKWKTDTWTRWAADRTWDRDDDDDRDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTTCTTTTTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WADADWWTWDAAADDWWADDRWDAWAWKWDDAWAWGARTADRRDWGDRAGKRGGARKRRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DDDDGAGDKDDDGKGKDADDDTDGTKDDDDKDKWDDWDKAKGTWGDATWAWAATDWWWWG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTAGRKWRRTWKRRWKRRDTRWDDADADDTARDDRRRRGDDGADAGKGKKTGRKRRRRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTATAAGTTTACATAAATCATT-TACTAATCCGCGTGTAATTAAGTTTTATGAAATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genomic survey sequence.
                                      /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
/clone_lib="DrosBAC"
                    /clone="BACN04L20"
                                                                                                                             location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:5610774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSS 26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       681
```

밁 Ş 밁 Ş 밁 ঠ

```
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                        RESULT 7
CNS016CO
                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                       중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
    COMMENT
                                                                                       REFERENCE
                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                           AUTHORS
TITLE
                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 218; Conserv
                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                             154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       514
                                                                                                                                                                                                                                                                                                                                34
                                                                                                                                                                                                                                                                                                                                                                                      94
Direct Submission
Submitted (23-JUL-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
- Web : www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as part of
                                                                                    Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                     AL106578.1
GSS.
                                                                       Genoscope.
                                                                                                                                                                                                  fly), genomic survey sequence.
AL106578
                                                                                                                                                                                                                                                                                                                                                         TAAAATGGTAAACTG 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAACAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTKTTTGATAAAATAKTTTTTTTTTTGGRGGGAATTTKTATRNTATAATTTAAAAAAAA
                                                                                                                                                                                                                                                                                                                              TTAKGTKUKNATATK 20
                                                                                                                                                                                                                                                                                                                                                                                    TTGAAWKTKTTTTWTATWATTWTATATAAKTATATATATATKTTWTTTTTTATAAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                             WTWTTWTTWTTWAWKWTTWATWAWAAAAATWTRAKKWWWTTTAAAAAATTTTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTTGWWTTTTWTKTATAWWWWWKTTTTTKWWATATTKTWTTTKTTAAAWTAATATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WTTTTTTWWTTKATAWTTTTGTATTWTTTTDTGKWWAAATTAATATWGWTTTTKATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAAWWTATKWATWTTGTAATAKTWTTTTATGTKTTWTTTTWTATTTAWTWWTTWTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCGGTTTATAAGTTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTTATGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GDGTGTGAAGTATTAAAAATATAAAGAAWTAATAAWAATATTTGTGWTTTTTATGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAATTTTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAATATTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTSATTAAAAATWDGDGTAARTGWGGTATATWTAAATKGATGGAKATTWAAKGGWAGTKK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGAATTTKAATGTWAAAAGAAAAGAAAAAWMGTATGMATAGTGATRWTWATGTKGTDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="end :
                                                                                                                                                                                        GI:5622626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88; Mismatches 300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 70.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0.0077
                                                                                                                                                                                                                            Drosophila melanogaster (fruit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 734;
                                                                                                                                                                                                                                           GSS 26-JUL-1999
nd of BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                    υ
                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                                                            95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84
```

```
RESULT 8
CR722884
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                             TITLE
JOURNAL
                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191 ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141;
                                                                                                                                                  CR722884

Tetraodon nigroviridis full-length cDNA.

CR722884.1 GI:51221135

HTC; CDNA; full-length; Tetraodon nigroviridis.

Tetraodon nigroviridis

Tetraodon nigroviridis
Direct Submission
Submitted (10-AUG-2004) Genoscope - Centre National
Submitted (10-AUG-2004) Genoscope - Centre National
Submitted (10-AUG-2004) Genoscope - Centre National
                                                                                                    Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collaboration with the European Drosophila Genome Project (EDGP) - http://www.edgp.ebi.ac.uk - This Drosophila melanogaster BAC library (Dros BAC) was made by Alain Billaud at CEPH (Centre d'Etude du Polymorphisme Humain) with funding provided by a MRC project grant. The DNA was prepared from embryos by Alain Bucheton and Genevieve Payan. It has been constructed in the vector
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pBeloBAC11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTTTTAAAAT 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAATAWATAAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIG-TTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGT 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTTYTAWAAAATAADGAWTAATTWTAACGAAAATTTTAAWAATTAATTWWWAAYAAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KTRRRGCYTTDCTWAAAGTTTTTTHGGTTWWWWATAWWAAWAAWAAAAAAWATTAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WHYYYCSSCMWTATTCYYMAYAVCSGRAAMMMHCCCSCSCAAAAAAAMMMMMMMMMGGGG
                                                                                                                              (bases 1 to 1896)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone lib="DrosBAC"
/plasmid="pBeloBAC11"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="genomic DN
/db_xref="taxon:7227"
/clone="BACN15E04"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Drosophila"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 68.8; DB Pred. No. 0.017;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            melanogaster"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                             de Sequencage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1:
                                                                                                                                                                                                                                                                                                                                                                                                                                        19-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250
```

cedex -

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
REFERENCE
AUTHORS
                                                                                                                                                  CNSOODKY/c
                                                                                                                                                                                                               S
                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                    Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                               RESULT 9
                                                                                                                              DEFINITION
                                                                                                                                          FOCUS.
                                                                         KEYWORDS
                                                                                              ACCESSION
                                                                                     ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        243
                                                                                                                                                                                                654
                                                                                                                                                                                                                    545
                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                    534
                                                                                                                                                                                                                                                                                                        425
                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                    365
                                                                                                                                                                                                                                                                                                                                                                         414
                                                                                                                                                                                                                                                                                                                                                                                              305
                                                                                                                                                                                                                                                                                                                                                                                                                   356
                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://www.genoscope.cns.fr/tetraodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        More information available at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (E-mail : segref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
The seguences are based on single pass reads.
                                                                                                                 CNS00DKY 928 bp DNA linear GSS 04-JUN-1999 Drosophila melanogaster genome survey sequence T7 end of BAC # BACR27A24 of RPCI-98 library from Drosophila melanogaster (fruit
                              Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
          Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 928)
                                                              Drosophila melanogaster (fruit fly)
                                                                                     AL071865.1
                                                                                                                                                                                                                                                                                                                                                                                                                   TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                         TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTTTTTTTAAATTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                TTAATTTTAATTAAACTATTTTA
                                                                                                                                                                                                                   GGCTTGGCAAGATTCCATAAGTTTA 569
                                                                                                                                                                                                                                                                                    TAGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                        TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                         genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mol_type="mRNA"
/db_xref="taxon:99883"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tissue_type="Kidney"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Tetraodon nigroviridis"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                      GI:4948170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.6%;
47.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 67.8; DE Pred. No. 0.024 0; Mismatches
                                                                                                                                                                                                  678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.024;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1896;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242
                                                                                                                                                                                                                                                                                                                                                                                                  364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       244
                                                                                                                                                                                                                                                                                       593
                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                             473
                                                                                                                                                                                                                                                                                                                                                                                                                                            304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            295
                                                                                                                                                                                                                                                                                                                                   533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                            S
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                        DEFINITION
                                                                                                                                   rocus
                                                                                                                                              CNS0021J/c
                                                                                                                                                        RESULT 10
     REFERENCE
                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                           564
                                                                                                                                                                                                               498
                                                                                                                                                                                                                                    624
                                                                                                                                                                                                                                                          438
                                                                                                                                                                                                                                                                               684
                                                                                                                                                                                                                                                                                                                          744
                                                                                                                                                                                                                                                                                                                                              318
                                                                    AL061936
AL061936.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
```

```
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission

Submitted (02-UN-1999) Genoscope - Centre National de Sequencage :
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Web : www.genoscope.cns.fr)

- Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP).

The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Oscegawa and Malaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's pl and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198 AAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAA
                                                                                                                                                                                                                                                                                                            CNS0021J DNA linear GSS 03-JUN-1999 Drosophila melanogaster genome survey sequence TET3 end of BAC # BACR05N11 of RPCI-98 library from Drosophila melanogaster (fruit
Neoptera; Endopterygota; Diptera; Brachycera;
Ephydroidea; Drosophilidae; Drosophila.
1 (bases 1 to 1101)
                                                                                       Drosophila melanogaster (fruit fly)
Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAAAWAAAATAWTTTWTWAA 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATAGAAAGTG 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             www.atatttwtatwtwawatawaaaaaaaaaaaaawtaaatttttwtttawttwtaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTTAGTACTTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACAAAAAAATTAGTGGAAAA 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                     genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Drosophila melanogaster"
/mol type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACR27A24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="RPCI-98"
/note="end : T7"
                                                                                                                                                                                                                              GI:4940214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9.5%; Score 67.2; DB 9; 30.7%; Pred. No. 0.033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                             Muscomorpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      625
```

of a

```
VERSION
KEYWORDS
                                                                                                                                                                    CNSOOEVL
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
            SOURCE
                                                                                                                                DEFINITION
                                                                                                                                                                                         RESULT 11
                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        collaboration with the Berkeley Drosophila Geneme Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BAGs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the isogenic strain y2; on bw sp. the same strain used for the BDGP's P1 and EST libraries. A more detailed description of the library and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                                                                                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                  473
                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                               533
                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181;
                             AL069706.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                       Drosophila melanogaster genome sur
BACR29B23 of RPCI-98 library from
                                                                                                                                                 CNSOOEVL
        Drosophila melanogaster (fruit fly)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    - Web : www.genoscope.cns.fr)
Determination of this BAC-end sequence was carried out as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCTTTTAAATTTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGA
                                                                                                                                                                                                                                                                                                                              CGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT 360
                                                                                                                                                                                                                                                                                                                                                                                                           ACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAWAAAAAAAWAWTWTTTAAAAWTTTTTTT-----WWTTAWATTAAAAWTAAAWAWT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTT 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                     genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="genomic DNA"
/db_xref="taxon:7227"
/clone="BACR05N11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="end : TET3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Drosophila melanogaster"
                                                 GI:4949849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lib="RPCI-98"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 67.2; Db ...
                                                                                                                                               1101 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                     o DNA linear GSS 04
survey sequence T7 end of E
rom Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 9; Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seqref@genoscope.cns.fr
                                                                                                                          GSS 04-JUN-1999
nd of BAC:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      part
                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                414
                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                밁
                                                                                                   Ş
                                                                                                                                                                                                                          밁
                                                                                                                                               밁
                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Determination of this BAC-end sequence was carried out as part of a collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila melanogaster genome using these BACs. For further information please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Osoegawa and Aaron Mammoser in Pieter de Jong's laboratory in the Department of Cancer Genetics at the Roswell Park Cancer Institute in Buffalo, NY. The library is named RPCI-98 and was constructed by partial EcoRI digestion of Drosophila DNA provided by the BDGP from the 1999 and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
                        501
                                                                                                       441
                                                                                                                                               618
                                                                                                                                                                                  381
                                                                                                                                                                                                                          759
                                                                                                                                                                                                                                                                 321
                                                                                                                                                                                                                                                                                                           699
                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (02-JUN-1999) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genoscope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
GAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAA 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATTATAAAATTAATTTTTTGCATGAAATTGTTTTTTAAGATAAAATTTTGACATAACCAA 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAATTTT
                                                                                                 CCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATAGAAAGTGAAC
                                                                                                                                           WAAAWAWATAWWATWATATAWWAATAWAWAAAAATWTAATATWAATWATAAWAAAAA
                                                                                                                                                                                                                          WATATATAWTTWTAWWWATWWAWWWTATAWATAWAATAWAWAWAWAWATAAATAWATAWAT
                                                                                                                                                                                                                                                                                                         TCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTAT
                                                                                                                                                                                                                                                                                                                                                                                      GTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WATTWTTWAWWTWTAWTAAAAAAAAWATAATTTAAAWWAATAWATTAAWAATTTAWAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AHTWTMMMMMWWAATWTWWAAAWAAWTTATWAATWAAAAWAWWWWWATTTTTWWWWWT
                                                                                                                                                                                TTTTTGGGTTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 1101)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone="BACR29B23"
/clone_lib="RPCI-98"
/note="end : T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Drosophila melanogaster"
/mol_type="genomic DNA"
/db_xref="taxon:7227"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9.5%;
30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 67;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
```

0

Gaps

0

80

518

938

500

440

818 380 320 698 260

758

638

578

```
RESULT 12
BH177277/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                        Ş
                                                                                                                      Ş
Ş
                             멍
                                                                                          밁
                                                                                                                                                         Query Match
Best Local S
Matches 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                              838
                                                                                                                                                            198;
                                                              65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Le Paslier,M.C., Pierce,R.J., Merlin,F., Hirai,H., Wu,W., Williams,D.L., Johnston,D., LoVerde,P.T. and Le Paslier,D. Construction and characterization of a Schistosoma mansoni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea; Strigeidida; Schistosomatoidea; Schistosomatidae; Schistosoma. 1 (bases 1 to 886)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genomic survey sequence.
BH177277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BH177277 886 bp DNA linear GSS 19-00 008_L_22-rev SmBAC1 Schistosoma mansoni genomic clone 008L22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Other_GSSs: 008_L_22-21
Contact: Pierce RJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schistosoma mansoni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genomics 65 (2), 87-94 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bacterial artificial chromosome library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Schistosoma mansoni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH177277.1 GI:16275873
                                                                                                                           ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: Raymond.Pierce@pasteur-lille.fr
CNS sequencing ID=DGOAA008DF11BP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: (33) (0)3 20877783
Fax: (33) (0)3 20877888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Class: BAC ends
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: M13 reverse primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 rue du Professeur A. Calmette, 59019-Lille, France
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Institut Pasteur de Lille
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INSERM U 167
                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WTAWATATATTATTAAWWTA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAAGTTTATTTCACCAAAAA 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TWATATTWTTATTAAAWTWTATWWATTWATTWWAWTWTATAWTTWTATWTATATATWWTA 998
                                                 AGTTTTTTAAATTTTTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                              TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAGTTAGATGAG
 ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                               quality sequence stop: 886
Location/Qualifiers
                                                                                                                                                         9.5%;
ilarity 36.0%;
Conservative 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             800
                                                                                                                                                                                                                                           /clone lib="SmBAC1"
//clone lib="SmBAC1"
//note="Vector: pBeloBAC 11; Site 1: Hind III; Partially
Hind III digested and size-selected S. mansoni cercarial
DIA was ligated into Hind III digested pBeloBAC 11 vector
and used to transform E. coli DH10B. The complete library
contains 23808 clones from 4 independent
contains 23808 clones from 4 independent
sizing-ligation-transformations. Average insert size
sizing-ligation-transformations coverage is 7.9-fold."
                                                                                                                                                                                                                                   sizing-ligation-transformations. Average insert size ranges from 70-127 kb and genome coverage is 7.9-fold."
                                                                                                                                                                                                                                                                                                                                                                  /lab_host="Biomphalaria glabrata"
                                                                                                                                                                                                                                                                                                                                                                                   /dev_stage="cercariae"
                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:6183"
                                                                                                                                                                                                                                                                                                                                                                                                                                              mol_type="genomic DNA"
/strain="Puerto-Rican"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Schistosoma mansoni"
                                                                                                                                                                                                                                                                                                                                                                                                               'clone="008L22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             row: L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               column:
                                                                                                                                                            65;
                                                                                                                                                                         Score 66.8; DB Pred. No. 0.039;
                                                                                                                                                            Mismatches
                                                                                                                                                                                          DB 8;
                                                                                                                                                              287; Indels
                                                                                                                                                                                          Length 886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSS 19-OCT-2001
                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ű
                                    719
                                                                                                                                64
                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
CNS07JUX/c
LOCUS
                                                                                                                                                                                                                                                                                                                           PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                          JOURNAL MEDLINE
                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298 ATGKBBKSAA 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schistosoma mansoni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schistosoma mansoni
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AL614235
AL614235.1 GI:16027459
                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                               Genoscope
                                                                                                                                                                                                                                                                                                                                                            20247247
                                                                                                                                                                                                                                                                                                                                             .0783255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCTTGGCAA 554
                                                                                                                                                                                                                                                                                                                              (bases 1 to 886)
                                                        /db_xref="taxon:6183"
/clone="008DF11"
                                                                                                                                                 Location/Qualifiers
                        /clone_lib="SmBAC1"
/note="end : T3"
                                                                                                                                     . 886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    =
=
=
```

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185 CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAGGTAAACGACCA 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Platyhelminthes; Trematoda; Digenea; Strigeidida; Schistosomatoidea; Schistosomatidae; Schistosoma.

1 (bases 1 to 886)

2 (ba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      886 bp DNA linear GSS 30-NOV-200.
T3 end of clone 008DF11 of library SmBAC1 from strain Puerto-Rican of Schistosoma mansoni, genomic survey sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web: www.genoscope.cns.fr)

Partially Hind III digested and size-selected S. mansoni cercarial DNA was ligated into Hind III digested pBeloBAC 11 vector and used to transform E. coli DHIOB. The complete library contains 23808 clones from 4 independent sizing-ligation-transformations. Average insert size ranges from 70-127 kb and genome coverage is 7.9-fold.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (05-OCT-2001) Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - FRANCE (B-mail : seqref@genoscope.cns.fr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WTAAATAAAWTTKTTAKAAAAAAKWATTKKTKTWDKKKKARATKKKKKAKKTTKTTKTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTTTAATTTTAAATTATTAAAMAAAAAAAATTTTTAAWTTTATAAATTAAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTKSTTTTSWAAATSATWTTTTTTGTTTTGAGATTTASTSTANASTATTTATAAATST 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AWWATKTTTATAATWAATKKKAANTAKATAAAATTATTTAAATBTATATNSKSTRATKTA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTWTATTAATAAAAAATTAATSARSTTATSTASTRTAATTKSANATAAKTAKKKATN 299
                                                                                                                                                                                                                                                                                                                               /organism="Schistosoma mansoni"
/mol_type="genomic DNA"
/strain="Puerto-Rican"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GSS 30-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       659
```

```
REFERENCE
AUTHORS
                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                     RESULT 14
CNS03NK1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                             DEFINITION
                                        JOURNAL
MEDLINE
PUBMED
                                                                                              TITLE
                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 198; Conserv
                                                                                                                  ALZ52134.1 GI:7973160
ALZ52154.1 GI:7973160
GSS; genome survey sequence.
Tetraodon nigroviridis
Tetraodon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
Terradontoidea; Tetraodontidae; Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                             298
                                                                                                                                                                                                                                                                                                                                                                                                                      545
                                                                                                                                                                                                                                                                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65
                                                              Roest Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C. Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F., Saurin, W. and Weissenbach, J.

Estimate of human gene number provided by genome-wide analysis using Tetraodon nigroviridis DNA sequence

Nat. Genet. 25 (2), 235-238 (2000)
Roest Crollius, H., Jaillon, O., Dasilva, C., Ozouf-Costaz, C., Fizames, C., Fischer, C., Bouneau, L., Billault, A., Quetier, F.,
                                                                                                                                                                                                                                                                                             Tetraodon nigroviridis genome surve 040G05 of library G from Tetraodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           u
                                                                                                                                                                                                                                                                                                                         CNSO3NK1
                                           10835645
                                                                                                                                                                                                                                                                                                                                                                                             ATGKBBKSAA
                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTTGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTWTATTATAAAAAAATTAATSARSTTATSTASTRTAATTKSANATAAKTAKKKATN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AWWATKTTTATAATWAATKKKAANTAKATAAAATTATTTAAATBTATATNSKSTRATKTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WTAAATAAAWTTKTTAKAAAAAKWATTKKTKTWDKKKKARATKKKKAKKAKTTKTTKTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTTTTTTTAAATTTTTTATTATTAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTKSTTTTSWAAATSATWTTTTTTGTTTTGAGATTTASTSTANASTATTTATAAATST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTTTAATTTTTAAATTATTAAAWAAAAAAAATTTTTTAAWTTTATAAATTAAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AWTTTTYTTWTTWTTTAATIWTATAAAAWTTANATTATTAWTTTTTTTTTAAAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 66.8; DB Pred. No. 0.039; 5; Mismatches 2
                                                                                                                                                                                                                                                                                                                       dq 859
                                                                                                                                                                                                                                                                                          bp DNA linear GSS (
    survey sequence PUC-Ori end
aodon nigroviridis, genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 886;
                                                                                                                                                                                                                                                                                                                       GSS 01-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                         end of
                                                                                                                                                                                                                                                                                                           clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                         RESULT 15
CG750135/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
 COMMENT
                                                                                                        REFERENCE
                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                  吊
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                       VERSION
                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
MEDLINE
                                                                 TITLE
                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                    491
                                                                                                                                                                                                                                                                                                                                                                                         431
                                                                                                                                                                                                                                                                                                                                                                                                                   398
                                                                                                                                                                                                                                                                                                                                                                                                                                            371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    251
                                                                 ß
                                                      pacificus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genoscope
             12884007
                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10899143
Sommer
```

```
Query Match
Best Local Similarity
Matches 114; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                           278 DWTTTWTMCGTCAAWAAAWTAAAAAAAAAAAAAGRAAAAATAAAARR
                                                                                                                                                                                                  genomic survey of CG750135 CG750135.1 GI:3
                                                           Srinivasan, J., Sinz, W., Jesse, T., Buntjer, J., van der Meulen, M. and
                                                                                                                                     Pristionchus pacificus
Pristionchus pacificus
Pristionchus pacificus
Eukaryota, Metazoa, Nematoda, Chromadorea, Diplogasterida,
                                                                                                                                                                                                                                                                                CG750135
P044-3-D09.za Ppa EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence is a single read and was generated as scale clone-end sequencing project of the Tetraodon genome. For more information, please take a look at http://www.genoscope.cns.fr/Tetraodon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Saurin, W., Bernot, A. and Weissenbach, J. Characterization and repeat analysis of the compact freshwater pufferfish Tetraodon nigroviridis Genome Res. 10 (7), 939-949 (2000) 20359837
                                                                                               Neodiplogasteridae; Pristionchus.
1 (bases 1 to 1592)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (12-APR-2000) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAAAAAATWAAAAAWTTWTTTTWATTTWWWTWAAATWWDTGAAAAAWTAKDWTWTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AWGTTTAWWTWWWTTGTGTWTATTTWWAWWWTTAGDWKTTTTWAWAAAAWWAAWDAWKTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (bases 1 to 658)
                                      ntegrated physical and
  Genet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="genomic DNA"
/db_xref="taxon:99883"
/clone="040G05"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="G"
/note="Genoscope sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Tetraodon nigroviridis"
                                                                                                                                                                                                                         GI:37971278
  Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.4%; Score 66.6; DB 9; 39.6%; Pred. No. 0.043; tive 48; Mismatches 126;
                                                                                                                                                                                                                                                               sequence
  269
                                                                                                                                                                                                                                                                                    BAC
(5),
                                      genetic map of the
                                                                                                                                                                                                                                                                                    Library
                                                                                                                                                                                                                                                                                                       ďď
  715-722
                                                           Wiggers-Perebolte, L., Sommer, R.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID ::
                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                                                                                                                                                                    Pristionchus
  (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COBG040AD03SP1~end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              658;
                                                                                                                                                                                                                                                                                  pacificus
                                                                                                                                                                                                                                                                                                                                                                                                           231
                                                                                                                                                                                                                                                                                                                                                                                                                                                 538
                                                                                                                                                                                                                                                                                                       GSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   part of a large
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genome of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                          Pristionchus
                                                                              Jansen, K.,
                                                                                                                                                                                                                                                                                                       24-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                  genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
```

```
FEATURES
Search completed: November 17, 2005, 17:46:28 Job time : 3124 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 195; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                        595
                                                                                                                                                                                                                                                                                                                                          655
                                                                                                                                                                                                                                                                                                                                                                                                         715
                                                                                                                                                                                                                                                                                                                                                                                                                                        127 TTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                    427
                                                                                                                                    367
                                                                                                                                                                                                      535
                                                                                                                                                                                                                                       307
                                                                                                                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                                                                                                                                        187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67 TTTTTTTAATTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAAT 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 TAAATTTGGGAAAATTTAATATATATGTATTAAAT-GGCAAATAAAAGTTAGATGAGAG 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Evolutionary Biology Max-Planck-Institute for Developmental Biology Spemannstr. 37-39, Tuebingen D-72076, Germany Tel: 00497071601371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: ralf.sommer@tuebingen.mpg.Class: BAC ends.
                                                                                                                                                                                                                                                                      CCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTG 306
                                                                                                                                                                                                                                                                                                                                                                    TTABACCTCGTABAGTTTTGGTCTTACCCBACCCBATACCCACBAAGGTBBACGACCBTB 246
                                                                                                                                                                                                                                                                                                                                                                                                         GTACTTGTTTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTAT 426
                                                                                                                                                                                                      TAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTA 366
                                                                                                                                                                                                                                                                                                                                       TGT 429
                                                                     TTT 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9.4%;
nilarity 46.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                00497071601498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="Ppa EcoRI BAC Library" /note="The library was generated by a partial digest of the genomic DNA with EcoRI and cloning into the BAC vector."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Pristionchus pacificus"
/mol type="genomic DNA"
/strāin="California"
/db_xref="taxon:54126"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 66.4; DB 9; Length 1592;
Pred. No. 0.044;
0; Mismatches 227; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                             596
                                                                                                                                           416
```

Ś

Ś 밁 ð В 유 성

DЪ γQ В Ś В 8 B

```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                         0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic - nucleic search, using sw
     0000
                                                                                                                         0000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           on:
       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB BB
     seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 Issued_Patents_NA:*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfIles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   November 17, 2005, 15:35:13; Search time 173 Seconds (without alignments) 6668.064 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-810-788A-4
705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1202784 seqs, 818138359 residues
     aagcttttaaatttgggaaa.....tctgtggtcacttgaatacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
   GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BB
US-09-270-767-13657
US-09-949-016-12776
US-09-949-016-15940
US-09-949-016-15940
US-09-949-016-15270
US-09-949-016-15270
US-09-949-016-1272
US-09-949-016-17081
US-09-949-016-17081
US-09-949-016-128913
US-09-949-016-128913
US-09-949-016-125860
US-09-949-016-125860
US-09-949-016-125861
US-09-949-016-125861
US-09-949-016-125861
US-09-949-016-1278881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          model
                                                                                                                                                                                                                                                                                             Sequence 13, Appl
Sequence 12776, A
Sequence 15940, A
Sequence 1, Appli
Sequence 22, Appl
Sequence 15270, A
Sequence 1137, Ap
Sequence 22, Appl
Sequence 17061, A
Sequence 17061, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                  Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                        Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 13657,
   17061, A
124813,
2913, A
28913, A
125860,
28914, A
28914, A
125865,
125865,
125865,
12740, A
                  US-08-487-826B-13/c
; Sequence 13, Application US;
; Patent No. 5993827
; GENERAL INFORMATION:
APPLICANT: Sim, Kim L.
APPLICANT: Chitnis, Chi
APPLICANT: Miller, Loui
APPLICANT: Meterson, Da
APPLICANT: Su, Xin-zhau
APPLICANT: Su, Xin-zhau
```

40 40 40 40 A0	RESULT US -09 Patter Patter APPI FILIT CURR CURR CURR CURR CURR CURR CURR CUR	0000000 0 000
Query Match Best Local Matches 11 320 260 141 200 201	SULT 1 Patent No. GENERAL IN APPLICANT TITLE OF FILE REFE CURRENT A CURRENT A CURRENT A CURRENT A CURRENT B UMBER OF SOFTWARE: SEQ ID NO LENGTH: TRESS OF SOFTWARE OF SOFTWARE SEQ ID NO LENGTH: ORGANISM ORGANISM ORGANISM	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
N G	1T 1 1-136 quence 13657, tent No. 6703 MERAL INFORMA, PPLICANT: Hom. TILE OF INVEN TILE OF INVEN TILE OF SEPERENCE URRENT FPLIC URRENT FILING UMBER OF SEQ OFTWARE: Pate Q ID NO 13657 LENGTH: 1044 TYPE: DNA ORGANIAM: Dro 9-270-767-136	44444444444444444444444444444444444444
Similarit 2; Conse ATTTAATA AATTTAATA AATTTAATA TTATTATA CTCTTGTA GTATTTGTA CTTTTGAT CTTTTGAT GTTTTGGT	7-67-13657/c 13657, Applic 10. 6703491 INFORMATION: NT: Homburger PINVENTION: N PERENCE: File APPLICATION N PILING DATE: CF SEQ ID NOS: E: Patentin Ve 70 13657 1: 1044 SM: Drosophila SM: Drosophila	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Imilarity 7.5%; Scimilarity 53.3%; Pr. ; CONSERVATIVE 0; ; CONSERVATIVE 0; ; CONSERVATION	Ver Nue	601 113060 113060 601 601 601 601 601 601 1784 4818 79835 205044 205044 205044 223471
.5%; GTATT	tion US/092 t al. cleic acids cleic acids MEER: US/09 999-03-17 62517 . 2.0 melanogaste	444444444
7.5%; Score 53.2; DB imilarity 53.3%; Pred. No. 0.039 ; Conservative 0; Mismatches aftraafaafatatetrattraaatrgggaaatrafag	US/09270767 c acids and protections: 1326-094 ence: 7326-094 ency/09/270,767 03-17 7 7 7 7 0	US-09-949- US-09-949-
, DB 0.039 hes AAAAG GCATT GTTTT GTTTA GAGAG GAGAG 230	ENTS roteins of	949-016-11006 949-016-14773 949-016-37150 949-016-37164 949-016-14518 949-016-14518 949-016-124518 949-016-124518 949-016-124518 949-016-158518 949-016-158518 949-016-158518 949-016-158518 949-016-158518 949-016-158518
4; Length 1044; 98; Indels 0; Gaps "TTAGATGAGAGTTTTTTTAAATTTT	Drosophila	7 0 0 0 H
B 0; B 0; ITTTTTA ITTTTAT ITTTTTAT ITTTTACAT ITTTTACCT ITTTAACCT ITTAAACCT ITTAAACCT ITTAAACCT		Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence
	melanogaste	110061 14773, 30571, 30571, 37150, 37164, 145868 146136 146404 146404 146404 146404 1465, 15852, 15852, 15853, 15853, 12724,
0; 80 261 140 201 200 141	н	PPPPPPPP' ` ` PPPP'

Sim, Kim L. Chitnis, Cheta Miller, Louis J

Chetan

US/08487826B

Peterson, David Su, Xin-zhaun Wellems, Thomas

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-487-826B-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: NII
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 235-8550
TELEFAX: (619) 235-0176
INFORMATION FOR SEQ ID NO: 13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIF: JACUL COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: BI
TITLE OF INVENTION: AN
UMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/487,826B FILING DATE: 10-SEP-1993 CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
mes 213; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Israelsen, Ned REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ENGTH:
                                                                                                                                        15481
                                                                                                                                                                                                                                                                                                                                                                                                                     15721
                                                                                                                                                                                                                                                                               15781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H: 19124 base pairs nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSEE: Knobbe Martens Olson & Bear
T: 620 Newport Center Drive 16th Floor
Newport Beach
California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92660
                                                                                                                                                                                                                                                                                                                                                                                 TTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATA
                                                                                                                                                                                                                                                                                                                                                                                                                   ATAAATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTA 523
                                                                                                   ATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAA 481
                                                                                                                                                                                                         TAATTAAGTTTTATGAAATGT-----GGTTATTTTGTAGGTCACGTGAAATTTATTAATT
                                                                                                                                                                                                                                                                                                              CCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTG
                                                                                                                                                                                                                                                                                                                                                  ATATATATCCTTAACCCACAAATACATATACAGAAAATCATA 15320
                                                                                                                                       TTTTTTTATATTTCATTTTTCTTTTTTCATTTTAATAAATTTGTTTTTATATTTCTTT
                                                                                                                                                                       TTTTAGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGAÇATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTTTAAATTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTAAGATAAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.3%; ilarity 46.1%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BINDING DOMAINS FROM PLASMODIUM VIVAX AND PLASMODIUM FALCIPARUM ERYTHROCYTE BINDING PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29,655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIH121.001CP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۰,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 51.6; DB 2;
Pred. No. 0.13;
0; Mismatches 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 19124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.
                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         126
                                                                                                                                                                                                           15482
                                                                                                                                                                                                                                                                                                                                                  15602
                                                                                                                                                                                                                                                                                                                                                                                                                     15662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15722
```

Ş 뭥 Ş

RESULT 4 US-09-949-016-15940/c

á

Д δ 뮹 Š

δ

8

S

망

```
S
                                                                                      Ş
                                                                                                                          В
                                                                                                                                                      á
                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
밁
                                                              밁
                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: n = US-09-949-016-12776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-949-016-12776/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 12776, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CUGRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
CURRENT FILING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 12776
LENGTH: 187169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Human FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (1)...(187169)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                        362
                                                                                                                                                                                                                      302 GCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATT
                                                                                                                                                                                                                                                     909
                                                                                                                                                                                                                                                                           245 TACCGGTTAATAATATTCTAACCGGTTTATAAGTTT---ACATAAATCATTTACTAATCC 301
                                                                                                                                                                                                                                                                                                                    969
                                                                                                                                                                                                                                                                                                                                                                                                               125 ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                              729
                                                                                                                            789
                                                                                                                                                                                         422 ATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAA 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 GTTTTTTTAAATTTTTTATTATAAAATA-ATTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 TTTAAATTTGGGAAAATTTAATAATATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                 ATAAATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTA
                                                                                                                                                           TTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAA
                                                            ATATATTTATATATATATATATATATATATATATATA
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 50.8; DB Pred. No. 0.26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 187169;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1090
                                                                                                                              730
                                                                 670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65
                                                                                                                                                                                          790
                                                                                                                                                                                                                          361
```

```
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHIENS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                      δ
                                                      밁
                                                                                      δ
                                                                                                                           밁
                                                                                                                                                  5
                                                                                                                                                                                         В
                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-949-016-15940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version SEQ ID NO 15940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION: APPLICANT: VENTER, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15940, Application Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(191569)
OTHER INFORMATION: n = A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 191569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             125 ATTITGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                              482
                                                                                                                               789
                                                                                                                                                             362
                                                                                                                                                                                              849
                                                                                                                                                                                                                                                                                           245
                                                             241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66 GTTTTTTAAATTTTTTATTATAAAATA-ATTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 TTTAAATTTGGGAAAATTTAATAATATATATTGTATTAAATGGCAAATAAAAGTTAGATGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAAATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTA 523
                                                                                             ATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAA 481
                                                                                                                               TTTTAGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAA
                                                                                                                                                                                                                            GCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATT
                                                                                                                                                                                                                                                             TACCGGTTAATAATATTCTAACCGGTTTATAAGTTT---ACATAAATCATTTACTAATCC
                                                                                                                                                                                                                                                                                                                             CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCCAATACCCACAAAGGTAAACGACCA
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.2%;
46.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 50.8; DB Pred. No. 0.26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 191569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1090
                                                                670
                                                                                                                                                               421
                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                             910
                                                                                                                                                                                                                                                                                                                                                             244
                                                                                                                                                                                                                                                                                                                                                                                                                              184
                                                                                                                                                                                              790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65
                                                                                                                               730
                                                                                                                                                                                                                                                                                                                                                                                              970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
```

RESULT 5 US-09-790-988-1/c ; Sequence 1, Application US/09790988 ; Patent No. 6632935 ; GENERAL INFORMATION:

```
GENERAL INFORMATION:
APPLICANT: The University of British Columbia
FITLE OF INVENTION: Regulation of Embryonic Tran
FILE REFERENCE: 4810-58741
CURRENT APPLICATION NUMBER: US/09/806,708B
CURRENT FILING DATE: 2001-04-03
PRIOR APPLICATION NUMBER: US 60/147,133
PRIOR APPLICATION NUMBER: US 60/147,133
PRIOR FILING DATE: 1999-08-04
NUMBER OF SEQ ID NOS: 23
SOFTWARE: Patentin version 3.0
SEQ ID NO 22
TENTURE: 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                      RESULT 6
US-09-806-708B-22/c
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-790-988-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: JP2000-107160
PRIOR FILING DATE: 2000-04-07
NUMBER OF SEQ ID NOS: 7
SOFTWARE: PACENTIN VET. 2.1
SEQ ID NO 1
LENGTH: 640681
                                                                                                                                                                                                                                                                Sequence 22, Application US/09806708B Patent No. 6784342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 7.2%;
Best Local Similarity 47.2%;
Matches 225; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: SHIGENOBU, SHUJI
APPLICANT: WATANABE, HIDEMI
APPLICANT: HATTORI, MASAHIRA
APPLICANT: SAKAKI, YOSHIYUKI
TITLE OF INVENTION: GENOME DNA OF
FILE REFERENCE: 081356/0159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/790,988
                   LENGTH: 1141
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Buchnera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  451020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   451080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              451140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        451200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 451260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            451320
                                                                                                                                                                                                                                                                                                                                                                                                                    431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19 AAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTAAAGTTTTGGTCTTACCCAACCCAATACCCACAA-----AGGTAAACGACCATACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTTATAAAATAATTTTTTGCATGAAATTGTTTTT---AAGATAAAATTTTTGACATA
                                                                                                                                                                                                                                                                                                                                                                                                                    GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATTATTGTA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAAATACCAACTGATTTTTTTTAGAATCTATAAAATCTATACAAAAATAACCAATTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTAATGTTTTTTTTTAATTTTTTTCGAATCCCATGTATCACGTAATCCAACAGTACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTAATCATAAAAACTTTTGTGAATATAAATATTTTTTTAAGAATAGATTTTCTTTTTT
                                                                                                                                                                                                                                                                                                                                                                              AAATTTTCTTGTTCCGGATTTTTTATATTAAATAATTGATCATATAATTTAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTTTTTTTTTTATAAACCCAAATTTTTTAATTAATGATTTTGAATTTATATACAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ďB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 50.6; DB 4;
Pred. No. 0.34;
0; Mismatches 244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BACTERIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; Length 640681;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYMBIONT OF
                                                                                                                                                                                                            Transcription in Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               в
``
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                  450904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     451021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          451141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   451201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            451261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78
```

2

```
; FEATURE:
; NAME/KEY: promoter
; LOCATION: (1)...(1141)
; OTHER INFORMATION: consensus sequence of A.t., L.a., and B.n. FAE1 promoters
US-09-806-708B-22
                                                                                                                                                                                                                                                                                                                            US-09-949-016-15270/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 74
                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                  Sequence 15270, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                              336 WMDHMNTHCTYGNNTWGSAYBMAAMSMWAAGASNBVTYNW 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WITDVRRMAMKAKNNNNNNAYWTACYNRAATNNKMATHWMKWTHGAHSKRRTRHHTRTCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TWMNTWYWDMMTTMBTTTTRNMTTSTNMTNNNNNNWWACTNNNNNNWWKAYYAHATNNWG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NNNNNNNNNNNTWCHYTTANABBCYRANNNAAARMARTCNNYMHAAVTTTHTDWCYK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTTTTTAAGATAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCAATTTCTAGTTCATCAAAACATATTTGGCGTTATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAATATTGAGTAATAAATATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTRMMTMRWTMKGDGMTVRKKVKWRDTTCTYVDVWADSWVWWYANWMRCRDVTYTRNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATTTATTAATTTTTTAGTACTTGTTTTTCTTTTTTGGG----TTCAACTAGTTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCCAATACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RTKYNNNNNARTVYWYHHAARRWMNAWWTRTNNNNNNNNNNNACRNTRTWWABWKHSWCN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AMYMRVAWMMYSRDTTNTDWMMWTSDWBWHWYTVDYTMXRAWNNNNNNWRBCKTTSWMW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGTACTTGGCCTTGCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGNNTMWMRRAWKMMNMAWCRRAYCCNNNNNRACVWHKHKMWRWTWKYMWKAACNNNNBK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGGAAAAGGCTTATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NNNTDTRYYWWKRWARBTTTVYDSMCNAKSMWRGNNWRAMKMWWAANNDAGAMDHWTYW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYCKSYAHSYWYWSNNAMWYRRYSARNWSSMARWTTRNNWWMSGBVRMRWAGTMWWRHWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CWWNNTDARRTNNTTVMRRRWMTNTKTRWYSTTRRHHYTGATNNNNNNNNNNNNNNNNSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative 226;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Length 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       336;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                       DETECTION
                                                                                                                                                                                                         AND
                                                                                                                                                                                                       USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                         THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   168
```

```
; ORGANISM: Human
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (1)...(192302)
; OTHER INFORMATION: n = A,7
US-09-949-016-15270
                                                                           US-08-998-416-1137; Sequence 1137, Application; Patent No. 6239264
                                                                                                                                                                         뮍
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                          RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 15270
LENGTH: 192302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                            GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                          144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24
                                                              INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAATTCTACCCTTTTTTTGGAGAGAGACTACTGTTCCCCCAACTCTAGTAATTAAAACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCT-----GTCTTTAAACCTCGT 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAATTTTTTTA
                                                                                                                                                                                                                                                                   TATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTTAGTACTTGTTTT
                                                                                                                                                                                                                                                                                                    TACTCTCTGCTGTGTACTATTGTAATGCATCAATTTTCATGTGTCTGCATACCACAATAT
                                                                                                                                                                                                                                                                                                                                                                TTTTTTTTTTTTTTAAAGGAAAGTAGCAAGTGCTGTAGTGAAAAATACTGCTCCGGAG
                                                                                                                                                                                                                                                                                                                                                                                            AAAGTTTTGGTCTTACCCAACCCCAATACCCACAAAGGTAAACGACCATACCGGTTAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTÄÄÄÄTTCTTTTAACAACGATAACTTTTTCAAGTAAAAATGTGAGACAGTGAATAGA
                                                                                                                                                                           TTGTTTCAAATTTAATCGAGACAATGT
                                                                                                                                                                                                     TCTTTTTGGGTTCAACTAGTTACTTT
                                                                                                                                                                                                                                       TCTAAAAGAGGTCTAGAATTTGAGGGATGAATGATTTAGTCATGGTTTAGGTGAAATTTT
                                                                                                                                                                                                                                                                                                                                 TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT
             Philippsen, Peter
Pohlmann, Rainer
Steiner, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
Christine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A, T, C or
                                               Peter
                                                                                             US/08998416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 49.8;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.0
                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 192302,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                      377
                                                                                                                                                                                                                                                                                                    75912
                                                                                                                                                                                                                                                                                                                                   317
                                                                                                                                                                                                                                                                                                                                                                  75972
                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83
                                                                                                                                                                                                                                         75852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76152
```

WESULT 8

US-08-998-416-1137, Application US/08998416

Patent No. 6239264

Patent No. 6239264

Patent No. 6239264

GENERAL INFORMATION:

APPLICANT: Pohlipsen, Peter

APPLICANT: Wendland, Rainer

APPLICANT: Wendland, Jurgen

APPLICANT: Wendland, Jurgen

APPLICANT: Wendland, Jurgen

APPLICANT: Wendland, Jurgen

APPLICANT: Rebischung, Corinne

TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII

TITLE OF INVENTION: AND USES THEREOF

NUMBER OF SEQUENCES: 1152

CORRESPONDENCE ADDRESS:

ADDRESSEE: No. 6239264artis Corporation

STREET: 3054 Cornwallis Road

CITY: Research Triangle Park

STATE: No. 6239264th Carolina

COUNTRY: USA

ZIP: 27709

COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION NUMBER: US/08/98,416

```
US-09-806-708B-22
                                                                                                                                                                                         Ś
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-998-416-1137
Sequence 22, Application US/09806708B

Patent No. 6784342

GENERAL INFORMATION:
APPLICANT: The University of British Columbia

TITLE OF INVENTION: Regulation of Embryonic Transcription in Plants
FILE REFERENCE: 4810-58741

CURRENT APPLICATION NUMBER: US/09/806,708B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 919-541-8689
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 24-DEC-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 001
FILING DATE: 31-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: T TICK:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                 909
                                                                                                                                                                                            488
                                                                                                                                                                                                                                                       428
                                                                                                                                                                                                                                                                                   486
                                                                                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                                                                                                                                           426
                                                                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187 AAAAAT-AATATTTAATATGÄÄTÄCTÄTTTAGTCTATGTTCAAATTTTAÄATTAGTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                  AATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGGT
                                                                                                                                                                 ATAAAGAATGTAGTTAAAAA 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAACGACCATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAATATTATTAGATATTATTATTTTCTTTAATAAATTATTAAATAGATTATCAATAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTTTAAATTTTTTATATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATT
                                                                                                                                                                                            ATAGAAAGTGAACAAAAAA 507
                                                                                                                                                                                                                         TTCTTATTATTAATTTTATATTAATAATAATTATATTCATTTTATTTATTTATTTAT
                                                                                                                                                                                                                                                                                                            TACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATT
                                                                                                                                                                                                                                                                                                                                        CGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.0%;
ilarity 45.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAG1692RP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CH 0016/97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 49.6; DB 3;
Pred. No. 0.2;
0; Mismatches 274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PF/5-30306/A/CGC1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 636;
                                                                                                                                                                                                                                                     487
                                                                                                                                                                                                                                                                                                             427
                                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                   425
                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                           365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                545
```

```
US-09-949-016-17061
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , OTHER INFORMATION: consensus sequence of A.t., L.a., and B.n. FAE1 promoters US-09-806-708B-22
Sequence 17061, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTIC
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2001-04-03
PRIOR APPLICATION NUMBER: US 60/147,133
PRIOR FILING DATE: 1999-08-04
NUMBER OF SEQ ID NOS: 23
SOFTWARE: Patentin version 3.0
SEQ ID NO 22
LENGTH: 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY: promoter
LOCATION: (1)..(1141)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                  809
                                                                                                                                                                                                                                                                                                                                                                                                       486
                                                                                                                                                                                                                                                                                                                                                                                                                                           548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    308
                                                                                                                                                                                                              728
                                                                                                                                                                                                                                                                                         899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    189 CBTVTWMVRYKTDRDWSBKRMNYGMBWWKNWSYDVTYYWWVWDDMCKRKVRRWVRTRGRM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         249 RNYMVAWBTAH-RRRYNNGWTBAMAYRRWTMNNNNNAKAMCKRAKYWGWNRABVNSTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              137 CCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCG 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                129 RWRAMBDTVDHHYVTAMNNAWTTMCMMDKDDKRTRWWWKKNNNATGWDDDTKYHMWNNNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77 TTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAA 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17 GAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                            RINASAAKNYAAAAVKAAKKHWRWANKWAMRGWHADAAABT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NNNGGRTYYGWTKNKKMWTYYKWKANNCKWRAWDHKTCTHNNTTWWKMKTYWNNCYWKSM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TWKSKTTKVRTSCWANNCRAGDANKDHKWWKWSAAMGVYWNNNNNNWTYKKARHBARWD
                                                                                                                                                                                                                                                  CTCTCTCTTTAAAATGGTAAACTGGTAAAGATAGGAGACT
                                                                                                                                                                                                                                                                                                                          GCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAAGAGTACTTGGCCTTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                   SWNYTSRYYRWKTINNSWRWRSDTRSMGRANNYARABHYGYKWNTRWWBWSHTWBHBRAGA
                                                                                                                                                                                                                                                                                     WYAMANAKWYYYKBAANNAYYTHANNWWGCWNNATDTRRTMWKNNNNNNAGTWKNNNNNN
                                                                                                                                                                                                                                                                                                                                                                ÄHYWMBMMYBAKCHCMKÁWYKAKKYAGAGGSNNNNNNNNNNNNNNNNNNNATCARDDYYAASR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TNGKSHRBAAAVYTWYMWWRRYAHANNNWDYWWKACTWYKYBVCSKWWNNYAAWYTKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGTTT----TTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WVWHSAWKKWHANAAHYSRKKWTBYKRKTMVNNNNGTTMWKRMWAWYWKMDMDWBGTYNN 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ----AATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGGTTAAT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative 256; Mismatches 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.0%; Score 49.6; DB 4; 12.5%; Pred. No. 0.22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                         607
                                                                                                                                                                                                                                                                                                                            605
                                                                                                                                                                                                                                                                                                                                                                                                     545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     547
                                                                                                                                                                                                                                                                                                                                                                667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    76
```

DETECTION

AND USES

THEREOF

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-949-016-124813/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-17061
                                                                       PRIOR APPLICATION NUMBER: 60/23:
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/23:
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows V
SEQ ID NO 124813
; ORGANISM: Human
US-09-949-016-124813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 17061
LENGTH: 96922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 124813, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                         APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241/755
PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Human
                                        TYPE: DNA
                                                          ENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38390 TATATATAAATATATTTTTATATATATTTGATATATAAATATATATTTATATATATATTTGA 38449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             38450 TATATAATATGTTTTTATATATATTTGATATATAAATATGTTTATATATATATTTGATATA 38509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           38750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38630
                                                                                                                                                                 APPLICATION NUMBER: 60/231,498
                                                                                                                                                                                  APPLICATION NUMBER: 60/237,768 FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272 TATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTTCTTTTTTGGGTTC 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTATATATTTTAATATATAAATATATGTTTATATATTTAATATATATAAATATATTTTATA 38688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGAAAAGGTAACTGGAAAGAAAAGGCTTATTGGCTTGGCAAGATTCCATAAGTTTATT 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTGAAATGAATGAATATTGAGTAATAAATAATATAGAAAGTGAACAAAAAAATTA 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAAATATGTTTATATATATTTGATATATAAATGTTTATATATATTTGATATAAAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGA 451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAAAGATAGGAGACTCAATTTCTAGTTCATCAAAACATATTTGGCGTTATTATTTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTTTATATATATTTGATATATAAATATATGTTTATATATATATTTGATATAAATATATATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                       for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.0%;
44.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 49.4; DB 4;
Pred. No. 0.45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches 231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 96922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38569
```

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
US-09-573-080A-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 181
                                                US-09-573-080A-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: JOAN, KNOLL
APPLICANT: ROGAN, PETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 29, Application US/09573080A Patent No. 6828097
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 29
Query Match
Best Local Similarity
                                                                                                                                                                              NAME/KEY: repeat region
LOCATION: (1)...(6996)
OTHER INFORMATION: hervg25
OTHER INFORMATION: n is a, c, g or t
PUBLICATION INFORMATION:
PUBLICATION INFORMATION:
AUTHORS: Jurka, J; Malichiewicz, J; Milosavljevic, A
AUTHORS: Jurka, J; Malichiewicz, J; Milosavljevic, A
TITLE: Prototypic sequences for human repetitive DNA
JOURNAL: Journal of Molecular Evolution
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/573,080A CURRENT FILING DATE: 2000-05-16
                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                              PAGES: 286-291
DATE: 1992-10-
DATABASE ACCESSION NUMBER: Database
DATABASE ENTRY DATE:
DATABASE ENTRY DATE: 1996-01-26
                                                                                                                                                                JOURNAL: JO
VOLUME: 35
                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                  ISSUE:
                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 6996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                y Match 7.0%;
Local Similarity 47.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264 GAATTCTACCCTTTTTTTGGAGAGAACAACTGTTCCCCCAACTCTAGTAATTAAAACTGTG 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 TAATAATATATGTATTAAATGGCAAATAAAGTTAGATGAGAGTTTTTTTAAATTTTTTA 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITTAAAATTCTTTTAACAACGAYAACTTTTTCAAGTAAAAATGTGAGACAGTGAATAGA 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTTTTTTTTTTTTAAAGGAAAGTAGCAAGTGCTGTAGTGAAAAATACTGCTCCGGAG 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCT-----GTCTTTAAACCTCGT 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTA 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACTCTCTGCTGTGTACTATTGTAATGCATCAATTTTCATGTGTCTGCATACCACAATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGTTTCAAATTTAATCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTTTTTGGGTTCAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTAAAAGAGGTCTAGAATTTGAGGGATGAATGATTTAGTCATGGTTTAGGTGAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTT 317
                                                                                                                                                                                                                                                                                                                                                                                                                                     PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N: SINGLE COPY GENOMIC HYBRIDIZATION PROBES AND METHOD OF GENERATIVE 30307
7.0%;
38.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 49.2; DB Pred. No. 0.24; 0; Mismatches
Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397
 49.2;
No. 0.
                                                                                                   of repetitive
   DB
.34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193;
                   4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 601;
                                                                                                      elements (repbase)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                   Length 6996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85
```

```
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR FILING DATE: 2000-10-30
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
SEQ ID NOS: 207012
SOFTWARE: FRASESEQ for Windows Version 4.0
SEQ ID NO 28913
     ફ
                                                                                                    ; ORGANISM: Human US-09-949-016-28913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-09-949-016-28913/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                               Query Match
Best Local Similarity
Matches 122; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: VENTER, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 28913, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION FILE REFERENCE: CLODI307
                                                                                                                                       TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
 277 GTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTT 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAAAAKTCTATTYYWTAAKATYAAMTGT 5184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TARARTTATCYATAARRKTTCATTAAAATTGGGRTTAACATTAATARTARACTARTRCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAATATTGAGTAATAAATAAATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGAAATTTATTAATTTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTAGGAGTAAAAGATTGTCTTAAATTAAATAAAGTGAAAGTTTTAAGCAAATTTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAATTTCTAGTTCATCAAAACATATTT 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RGRKAAAATTTRRCTTTYTCTYTTWAACAGRATTTTYAYGTARTARTWARGRCYAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAAGAAAAGGCTTATTGGCCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DTATCAAAATTTCTAAAAGATTATAAAAGATTTGTAAAMATCAAACTGGTTAAGATTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAAT 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTAAATTAAGCATTKAAATGAAAGCACAACAAARYWYTCTTAAAATGCTAATCTRCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATACTRTAAAAATTAATYTTTWTTTAAMCTAAATTCAAAGGAATATCATATGGTGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTAAAADCAGTAAAATTTTTTAATAAAAAATTATAAGAAGGCATAAAAATCTACATTTT 4736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATTGTTTTTAAGATAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGATWTTTGCTTTTTCAAATWTTTRAKTCATKTTRRCAAAAYAARTARCTTATRRTAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGTACTTGGCCTTGCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCACAAAGGTAAACGACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                      Conservative
                                                    49.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38;
                                    <u>ب</u>
                                  Score 48.8; DB 4;
Pred. No. 0.29;
1; Mismatches 123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches 314; Indels
                                    123;
                                                                 Length 601;
                                    Indels
                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                       AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                       SES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165
                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
RESULT 15
US-09-270-767-29671/c
; Sequence 29671, Application US/09270767
                                                                                                                                                   밁
                                                                                                                                                                                 Ś
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
```

```
; ORGANISM: Human US-09-949-016-125860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
US-09-949-016-125860/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FRATSEQ for Windows Version
SEQ ID NO 125860
LENGTH: 601
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION UNMEER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 122; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 125860, A Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
124
                                       517
                                                                                      184
                                                                                                                                457
                                                                                                                                                                                                                         397
                                                                                                                                                                                                                                                                    304
                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                       277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      304 TTGKATATATATATATATTGTAAAATTATATACAATATATTCTATATTGTAATATATTG 245
                                                                                    CAAAATACAAAATATAAAAATGTATACAATATTTCTATATTGAACAAAATACAAAATATAA
                                                                                                                                                                             TATAAGTCATATATTTATCTATATATATACATATTTGTATACAATATTTATATATTGCA
                                                                                                                                                                                                              GTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTG 456
                                                                                                                                                                                                                                                                    TTGKATATTATATATATTGTAAAATTATATTACAATATATTCTATATTGTAATATATTG
                                                                                                                                                                                                                                                                                                           GTAGGTCACGTGAAATTTATTTAATTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTA
                                                                                                                                                                                                                                                                                                                                                        GTATATATAATATATATATATTGTATATATGATTATATATTACAATATGTAATTATATA
                                                                                                                                                                                                                                                                                                                                                                                                GTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGGT 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAAATACAAAATATAAAATGTATACAATATTTCTATATTGAACAAAATACAAAATATAA 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATAGATGGTG
                                       AAAGGT 522
                                                                                                                                AAATGAAATGAATATTGAGTAATAAATAAATATAGAAAGTGAACAAAAAAATTAGTGGA
AATGGT 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATAAGTCATATATTTATCTATATATATATACATATTTGTATACAATATTTATATATTGCA 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 48.8; DB 4;
Pred. No. 0.29;
1; Mismatches 123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                    125
                                                                                                                                516
                                                                                                                                                                             185
                                                                                                                                                                                                                                                                    245
                                                                                                                                                                                                                                                                                                              . 396
                                                                                                                                                                                                                                                                                                                                                          305
```

```
; Patent No. 6703491
; GENERAL INFORMATION:
APPLICANT: HOMBUIGER et al.
; APPLICANT: HOMBUIGER et al.
; TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
; CURRENT APPLICATION NUMBER: US/09/270,767
; CURRENT FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 62517
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 29671
; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-270-767-29671
                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                Ъ
                                                                                                                                                                                                                                                                                                                                                        Ş
Search completed: November 17, 2005, 17:49:32 Job time : 179 secs
                                                                                                     δ
                                                                                                                                                 음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 52.2%;
Matches 106; Conservative
                                                                                                         201 GTTTTGGTCTTACCCAACCCAAT 223
                                                                                                                                                                                                  141 GTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAAACCTCGTAAA 200
                                                                                                                                                                                                                                               143
                                                                                                                                                                                                                                                                                                                           203 AATTAATAAGATTTGTTTCAAATAACATCTGCATTTTGGCTTTTGAGTTTTTTATCTTTTT 144
                                                                                                                                                                                                                                                                          81 TTATTATAAATTATTTTTGCATGAAATTGTTTTTAAGATAAAATTTTGACATAACCAA 140
                                                                                                                                                                                                                                                                                                                                                    21 ATTTAATAATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTTTTTAAATTTT 80
                                                                                                                                                            83 CTTTTGATTATAATGCCACTGCGCACTTGAATAAGCTGAGCCCAACTTATTAACTTTAACA 24
                                                                                23
                                                                                                                                                                                                                                            CTCTTGTAATCTTTTGTTATGTATCTTAAGGTTTAGTAGCTTAATATTTTTTCGGAAGTAT 84
                                                                              CTTTCGTAATGAACCAACACAAT 1
                                                                                                                                                                                                                                                                                                                                                                                                           Score 47.8; DB 4; Length 927; Pred. No. 0.5; O; Mismatches 97; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
```

```
Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB seq length: 0
DB seq length: 2000000000
                2 1 ... 2 ... 3 ... 3 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 ... 4 4 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    November 17, 2005, 15:51:38 ; Search time 850 Seconds (without alignments) 6859.085 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9794790 seqs, 4134909567 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-810-788A-4
705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                | Cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_NEW_PUB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USO9E_PUBCOMB.seq:*
| Cgn2_6/ptodata/2/pubpna/USOOE_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         aagcttttaaatttgggaaa.....tctgtggtcacttgaatacc 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyright
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq;*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq2:*
/cgn2_6/ptodata/2/pubpna/US11A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US11_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19589580
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIE

0 4 2 2 1	sult No.
705 704 64.2 62.6 62.4	Query Score Match Length
100.0 99.9 9.1 8.9 8.9	Query Match Length DB ID
1	
201122	BB
21 US-10-810-788A-4 21 US-10-810-788A-3 21 US-10-473-126-386 21 US-10-473-126-386 21 US-10-473-126-386 20 US-10-021-323-6375	ID
Sequence 4, Appli Sequence 3, Appli Sequence 386, App Sequence 386, App Sequence 6375, Ap	Description

45	44	43	42	41		c 39		37	c 36	35	c 34		32	31	c 30		28	27	26	25	C 24	23	22	c 21		19	c 18		c 16	15	14	c 13	12	11	c 10		89	7	ი 6
56		6	9	6	6			9	6	9		7.	7	7	7	7	7	7	57.8	7	7	ຫ	œ	œ	œ	58.6	œ	œ		ഗ	ø	59.2	œ.		õ		60.6	0	62
7.9			٠								٠															8.3													
560	5	78	17848	784	553	æ	385	574	376	8423	577	353	7857	565	550	486	353	7823	7823	7823	494	9646	554	631	631	547	469	428	752	4	50000	6816	8056	499	626	560	11422	Φ	8056
20	20	18	16	15	21	10	10	20	10	16	19	20	20	20	21	20	20	16	16	15	21	16	20	10	10	20	20	20	10	20	22	21	21	20	21	20	18	16	21
-10-021-323-2253	-10-021-323-110	-10-257-166-	-10-240-453-	-10-239-676-	15-3994	-09-814-353-	9-814-353-536	-10-021-323-1114	-09-814-353-185	-10-311-455-	-10-424-599-	-021-323-	-10-433-793-	-10-021-323-1112	-10-357-930-	-10-021-323-1600	-10-021-323-	-10-240-453-	-10-311-455	-10-239-676-198	-10-357-930-100	-10-311-455-	-10-021-323-6039	-09-814-353-1	-09-814-353-5993	10-021-323-168	-10-021-323-1683	-10-021-323-7700	-09-814-353-	-10-021-323-1683	-10-706-635-	-10-723-860-76	-10-473-126-24	-10-021-323-171	-10-357-930-6	-10-021-323-225	S-10-257-166-1	-10-311-455-19	0-473-126-
Φ.	equence 1	equence 5	equence 3	equence 2	equence	Ф	æ	equence	equence	equence	equence	Φ	equence	equence	equence	æ	equence	equence	Ð	equence	equence	e 1	equence	equence	equence	equence	Φ	equence	equence 1	equenc	equence 2	equence 7	equence 2	equence 1	~	N	equence 1	_	equence 2
53, A	S	•	•	•	9947, A	1655, A	•	,7	8587, A	•	86	039, Ap	Ąp	,	,	œ	` >	92, App	2034, Ap	38, App	0012, Ā	•	•	Ö	•	16890, A		0,	656,	8	·	676, Ap	-	ō	S.	3, A	.7, Appl	, Ap	•

ALIGNMENTS

```
뭉
                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 1
US-10-810-788A-4
                                                                                                                                             US-10-810-788A-4
                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/10810788A Publication No. US20040216184A1 GENERAL INFORMATION:
                                                                                                                                                                                               SEQ ID NO 4
LENGTH: 705
                                                                                                         Query Match
                                                                                                                                                                                                                               APPLICANT: Ruezinsky, Diane
TITLE OF INVENTION: Novel Plant Promoters for Use in Early Seed Development
FILE REFERENCE: REN-00-118
CURRENT APPLICATION NUMBER: US/10/810,788A
CURRENT FILING DATE: 2004-03-26
PRIOR APPLICATION NUMBER: US 60/458,828
PRIOR PRIOR PILING DATE: 2003-03-28
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin version 3.1
                                                                                                                                                      TYPE: DNA
ORGANISM: Arabidopsis thaliana
                                                       Local 705;
                                                                                      Similarity
               AAGCTTTTAAATTTTGGGAAAATTTAATATATATGTATTAAATGGCAAATAAAAGTTTAGA
                                                                  100.0%; Score 705; DB 21; llarity 100.0%; Pred. No. 3.2e-122; Conservative 0; Mismatches 0;
                                                                                                     Length 705;
                                                                      Indels
                                                                    0
                                                                    Gaps
60
                                                                    0
```

```
Sequence 3, Application US/10810788A

Publication No. US20040216184A1

GENERAL INFORMATION:
APPLICANT: Ruezinsky, Diane
TITLE OF INVENTION: Novel plant promoters for Use in
FILE REFERENCE: REN-00-118

CURRENT APPLICATION NUMBER: US/10/810,788A

CURRENT FILING DATE: 2004-03-26

PRIOR APPLICATION NUMBER: US 60/458,828

PRIOR APPLICATION NUMBER: US 60/458,828

PRIOR APPLICATION NUMBER: US 50/458,828

PRIOR APPLICATION VERSION 3.1

SOFTWARE: PatentIN version 3.1

SEQ ID NO 3

LENGTH: 2017

TYPE: DNA ORGANISM: Arabidopsis thaliana

US-10-810-788A-3
밁
                          ş
                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
US-10-810-788A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                중 음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽
                                                          Query Match
Best Local Similarity
Matches 704; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 TAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 CTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTCTCTCTCTTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCTAGTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTTAGTACTTGTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTTAGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAGAGTITTTTTAAATTTTTTATTAAAATAATTTTTTGCATGAAATTGTTTTTAAGA 120
 AAGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGA 1373
                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAAAACATATTTGGCGTTATTATTTCTGTGGTCACTTGAATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAAAACATATTTGGCGTTATTATTTCTGTGGTCACTTGAATACC 705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGTGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC
                 AAGCTTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCCAACCCCAATACCCCACAAAGGTAAACG
                                                            Conservative
                                                         99.9%; Score 704; DB 21; Length 2017;
100.0%; Pred. No. 7.1e-122;
tive 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                            ij
                                                                                                                                                                                                                                                                                                          Early Seed Development
                                                                                                                                                                                                                                                                                                                                                                                                                                                 705
                                                          0,
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                          0
```

Q Qq	Query Best Match	RESULT US-10-4 / Sequa / Sequa / Sequa / Publi / GENEI / App / TITI / ORC / FEB / ORC / FEB / OTI	Db	Ş	당 4) }	δ	당 왕	Db 4	9 8	\$ 8	Qу	Db :	ş	B 64	DЬ	8	8 8	?
5 TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG 64 	ery Match 9.1%; Score 64.2; DB 21; Length 8056; st Local Similarity 45.7%; Pred. No. 0.059; tches 260; Conservative 0; Mismatches 308; Indels 1; Gaps 1;	RESULT 3 US-10-473-126-386/c Sequence 386, Application US/10473126 Publication No. US20040234973A1 GENERAL INFORMATION: APPLICANT: Epigenomics AG TITLE OF INVENTION: Methods and nucleic acids for the analysis of hematopoietic cell TITLE OF INVENTION: proliferative disorders FILE REFERENCE: CURRENT FILING DATE: 2003-09-26 NUMBER OF SEQ ID NOS: 1258 SEQ ID NO 386 LENGTH: 8056 TYPE: DNA ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)		661	GCTCTCTCTCTTTAAAATGGTAAACTGGTAAAGATAGGAGACTCAATTTCTAGTTCA	1854 TATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTTGGCCTT: 1913	TATTGGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTTGGCCTT 6	481 AATAAATATAGAAAGTGAACAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAA	AATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATA 17	421 AATTATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATA	361 TTTTAGTACTAGTTTTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAA 420	301 CGCGTGTAATTAAGTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAAT 360 		241 ACCATACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATC 300	181 CTGTCTTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACG 240	1434 TAAAATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTC 1493	121 TAAAATTTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGAGTGTC 180	1374 TGAGAGTTTTTTAAATTTTTTAATAAAATAATTTTTTGCATGAAATTGTTTTAAGA 1433	בא. גל תיידידידידי אל בל באת באת באת הידידידידיד באת באת באת באת בתיידידידית בל בתיידידידית באת באת באת באת באת באת באת באת באת בא

```
밁
                             Ś
                                                             В
                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                            В
                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
US-10-473-126-386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                            US-10-473-126-386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                    APPLICANT: Epigenomics AG
TITLE OF INVENTION: Methods and nucleic acids for the analysis of hematopoietic cell
TITLE OF INVENTION: proliferative disorders
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/473,126
CURRENT FILING DATE: 2003-09-26
NUMBER OF SEQ ID NOS: 1258
SEQ ID NO 386
LENGTH: 8056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 386, Application US/10473126 Publication No. US20040234973A1 GENERAL INFORMATION:
                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Artificial
FEATURE:
                                                                                                                                                                                                                                                                      OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
                                                                                                                                                                                     8.9%;
Local Similarity 45.0%;
les 274; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        245
                                                                                                                                                            11
                             ACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAA 190
                                                               ATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTT 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATTAATAAAAATAATAATTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCTTGGCAAGATTCCATAAGTTTATTT 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTTGACATCAAAATT 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAAAAATACAAAATAATTTTTTTTTTTTTTTAATTAAAATCAATATATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAATTTTG 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATATAGAAAGTGAACAAAAAAATTAG-TGGAAAAGGTAACTGGAAAGAAAAGGCTTAT 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTTAATTAAAAAATTÄÄÄÄÄÄTTTCÄTATAAÄÄÄÄCATÄÄÄAATÄÄÄÄÄACÄÄTAAAATÄT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTTTTTTAAATTTTTTATTAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA
                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                        Score 62.6; DB 21;
Pred. No. 0.12;
0; Mismatches 334;
                                                                                                                                                                                           334;
                                                                                                                                                                                           Indels
                                                                                                                                                                                                                         Length 8056;
                                                                                                                                                                                        1;
                                                                                                                            2168
                                                               2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                       ঠ
                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
US-10-021-323-6375
; Sequence 6375, Application US/10021323
; Publication No. US20040123340A1
밁
                                                                                        á
                                                                                                                                                                                          US-10-021-323-6375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Deikman, Jill
APPLICANT: Peng, Paul C.C.
APPLICANT: Fincher, Karen L.
APPLICANT: Fincher, Karen L.
APPLICANT: Ziegler, Todd E.
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(52274)B
CURRENT APPLICATION NUMBER: US/10/021,323
CURRENT FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: US 60/255, 619
PRIOR APPLICATION NUMBER: US 60/255, 619
PRIOR FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 17880
SEQ ID NO 6375
LENGTH: 531
                                                                                                                            Matches
                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                     NAME/KEY: unsure
LOCATION: (1)..(531)
OTHER INFORMATION: unsure at all n locations
OTHER INFORMATION: Clone ID: LIB3828-004-Q1-N6-H2
                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Gossypium
                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311
                                                                                                                          144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   251
13
                                                               ,_
TTTTCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACG
                                                                                         TTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTTATTTATTTTAAAATAATTTATTAATTTTTGTATTTAAATAAATTTTAATTTAATT 2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAGATTCCATAAGTTTATTTCACCAAAAAGGGAAAGAGTACTTGGCCCTTGCTCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TIGITITITCTTTTTTTGGGTTCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT 310
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             619
                                                                                                                                         8.9%;
                                                                                                                                                                                                                                                                                       hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2716
                                                                                                                          0,
                                                                                                                                         Score 62.4; DB 20;
Pred. No. 0.051;
                                                                                                                          Mismatches 136;
                                                                                                                            Indels
                                                                                                                                                        Length 531;
```

610

2587

2527

550

0

Gaps

0

434

60 374

```
멍
                                                                 á
                                                                                        В
                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                     Ó
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-10-473-126-240/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                   á
                                                                                                            δ
                                                                                                                                       д
                                                                                                                                                           Ś
                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-473-126-240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 240
LENGTH: 8056
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 248; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 240, Application US/10473126 Publication No. US20040234973A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Epigenomics AG
TITLE OF INVENTION: Methods and nucleic acids for the analysis of hematopoietic
TITLE OF INVENTION: proliferative disorders
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/473,126
CURRENT FILING DATE: 2003-09-26
NUMBER OF SEQ ID NOS: 1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                       1384
                                                                                                                                                                                                                                                                                                                                 1564
                                                                                                                                                                                                                                                                                                                                                                                1624
                                                                                           1269
                                                                                                                                                                                                                                                                                  245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                         ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT
                                                                                                                                                                                                                                                                                                                                                AGTTTTTTAAATTTTTTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                              CTTTAAACCTCGTAAAGTTTTGGTCTTACCCAAACCCAATACCCACAAAGGTAAACGACCA
                                                                                                                                                                                                                                                                                                                                 ATTTTTTAAAAAAATAATTTTATTTAAAAATTTTTTTAACGTATTTATATTTTATATTTA 1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTTCGAATATCGAAAAAATATTAAAAAACGAATATAAACGTTTAAAACGTTAA 1092
                    ATTAAATAATATTAAAATTTTAAAATAAATTAATAATCGAAAATATATTAATTTTAA 1150
                                                                   TAGTACTTGTTTTTTCGTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATT 424
                                                                                                                                                              TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                             TACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                      TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATTCCATAAGTTTATTTCACCAAAAAGGAAAGAGTACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAAATATAGAAA 494
                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                       8.8%;
46.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                           Score 62; DB:
Pred. No. 0.15
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                       0.15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                             285; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   594
                                                                                                                                                                                                                                                                                                                                                                                                                            υ
••
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                              304
                                                                                                                                                                                                                                      1385
                                                                                                                                                                                                                                                             244
                                                                                                                                                                                                                                                                                   1445
                                                                                                                                                                                                                                                                                                         184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cel
                   S
                                         g
                                                                 Ś
                                                                                         밁
                                                                                                             Ş
                                                                                                                                        밁
                                                                                                                                                             Ş
                                                                                                                                                                                       밁
                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
US-10-311-455-191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
                                            7676
                                                                                           7616
                                                                                                                                                                                       7499
                                                                                                                                                                                                                                      7439
                                                                                                                                                                                                                                                                                                                                 7323
                                                                                                                                                                                                                                                                                                                                                                                7267
                                                                                                                                         7559
                                                                                                                  426
                                                                                                                                                                                                              306
                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                                                      66
                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
```

```
Sequence 191. Application US/10311455

Publication No. US20030143606A1

GENERAL INFORMATION:
APPLICANT: OLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Diagnosis of Diseases Ass
TITLE OF INVENTION: Dycosine methylation
FILE REFERENCE: 5013.1014

CURRENT APPLICATION NUMBER: US/10/311,455
CURRENT FILING DATE: 2002-12-16
PRIOR APPLICATION NUMBER: PCT/EP01/07537
PRIOR FILING DATE: 2001-07-02
PRIOR APPLICATION NUMBER: DE 10032529.7
PRIOR FILING DATE: 2000-06-30
PRIOR FILING DATE: 2000-09-01
PRIOR FILING DATE: 2000-09-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-311-455-191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 2424
SEQ ID NO 191
LENGTH: 11422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA 65
                                          GCTTGGCAAGATTCCATAAGTTTATTT 572
                                                                                                                               TTTAGAATTATGTGAGATAGTATTTAATTGTATTAGAATTT---ATTAAAAGAAAAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTTTTTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAA 125
TATAGATTTAATATTTTATTTATTT
                                                                                            TTAAATTTGTACGTTGTGTATATGTÄTTTTAÄÄÄTTTÄÄÄGTÄTÄÄTÄÄTÄÄTÄÄÄÄÄTTÄ
                                                                                                                                                                                                                              AGTACTTGTTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATTA 425
                                                                                                                                                                                                                                                                                                                                                                                    GTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTT 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTTTTTATTTTAATATTAATATTATTATTTTGATAAGTAAATTGATTTAAATTTAGATAT 7498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTAAAAATTTAATTTTTAAAAATTAGAATGGTTTGAATTTTAAAT----AAAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8.6%;
48.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 60.6; DB Pred. No. 0.31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches 284;
7762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Associated with the Immune System by Determi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 11422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                             7675
                                                                                                                                                                                                                                                                                          7615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7266
                                                                                                                                                                                                                                                                                                                                                                                         7558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7438
```

```
Ş
                                                            В
                                                                                      á
                                                                                                                 g
                                                                                                                                               Ś
                                                                                                                                                                                 В
                                                                                                                                                                                                                5
                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
US-10-257-166-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 8
US-10-257-166-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-09-01
NUMBER OF SEQ ID
SEQ ID NO 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17, Application US/10257166 Publication No. US20040023230A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: OLEK, Alexander
APPLICANT: PIEPENBROCK, Christian
APPLICANT: BERLIN, Kurt
TITLE OF INVENTION: Method and Nucleic Acids for Analysing the Methylation
TITLE OF INVENTION: Genes Implicated in Pharmacogenomics
FILE REFERENCE: 5013.1011
CURRENT APPLICATION NUMBER: US/10/257,166
CURRENT FILING DATE: 2002-10-07
PRIOR APPLICATION NUMBER: PCT/EP01/07470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-06-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENGTH: 11422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DE 10032529.7
DE 10043826.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                          7439
                                                                                                                                                                                                                                                                                                                                                                                         7383
                                                                                                                             7616
                                                                                                                                                                                                                                                          7499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7207
                                                                                                                                                           426
                                                                                                                                                                                                                           366
                                                                                                                                                                                                                                                                                          306
                                                                                                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                          246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
TATAGATTTAATATTTTATTTATTT
                            GCTTGGCAAGATTCCATAAGTTTATTT 572
                                                                                                                                                                                                                                                                              GTAATTAAGTTTTATGAAATGTGGTTATTTTTGTAGGTCACGTGAAATTTAATTTTTTT 365
                                                                                                                                                                                                                                                                                                                                                  ACCGGTTAATAATATTCTAACCGGTTTATAAGTTTTACATAAATCATTTACTAATCCGCGT
                                                                                                                                                                                                                                                                                                                                                                                       TTTAAAAATTTAATTTTTTAAAAATTAGAATGGTTTGAATTTTAAAT----AAAAATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTTGTTATTTTTTTTTTTGAAAGTTATTGTTATAATAGTTTTAGTATTT-----TTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATAGAAAGTGAACAAAAAAATTAGTGGAAAAGGTAACTGGAAAAGAAAAAGGCTTATTG 545
                                                                                                                                                                                          TTTAGAATTATGTGAGATAGTATTTAATTGTATTAGAATTT----ATTAAAAGAAAAACGA
                                                                                                                                                                                                                        AGTACTTGTTTTTCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTA
                                                                                                                                                                                                                                                          TGTTTTTÄATTTTTAATATTAAATATTATTTTGATAAGTAÄÄTTGÄTTTÄAATTTAGATAT 7498
                                                                                                                                                                                                                                                                                                                                                                                                                       TTTAAACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTTTTTAAATTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAAA 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGA
                                                           AAAAAAAGAAAAACGATAATGTTTTGAATATTTTÄATTAATTAAAAAATTTTGAGA
                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.6%;
48.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 60.6; DB 18;
Pred. No. 0.31;
0; Mismatches 284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 11422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11;
                                                                                                                                                                                                                           425
                                                                                                                                                                                          7615
                                                                                                                                                                                                                                                          7558
                                                                                                                                                                                                                                                                                                                                                         305
                                                                                                                                                                                                                                                                                                                                                                                         7438
                                                                                                                                                                                                                                                                                                                                                                                                                                                         7382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65
                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o
E
```

```
Sequence 2253, Application US/10021323

Publication No. US20040123340A1

GENERAL INFORMATION:

APPLICANT: Delkman, Jill

APPLICANT: Fincher, Karen L.

APPLICANT: Tiegler, Todd E.

TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants

FILE REFERENCE: 38-21(52274) B

CURRENT APPLICATION NUMBER: US/10/021,323

CURRENT FILING DATE: 2001-12-12

PRIOR APPLICATION NUMBER: US 60/255, 619

PRIOR FILING DATE: 2000-12-14

NUMBER OF SEQ ID NOS: 17880

SEQ ID NO 2253

LENGTH: 560
APPLICANT: MONAHAN, JOHN
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR TITLE OF INVENTION: HUMAN PROSTATE CANCER
FILE REFERENCE: MRI-007BCN
CURRENT APPLICATION NUMBER: US/10/357,930
CURRENT FILING DATE: 2003-02-04
PRIOR APPLICATION NUMBER: 09/785,276
PRIOR APPLICATION NUMBER: 09/785,276
PRIOR FILING DATE: 2003-02-16
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-03-16
PRIOR FILING DATE: 2000-03-16
PRIOR APPLICATION NUMBER: 60/207,454
PRIOR PILING DATE: 2000-05-25
                                                                                                                                                                                                                                                                                                                                                                                   US-10-357-930-60960/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Clone ID: LIB3825-011-Q1-N6-C9 US-10-021-323-2253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
US-10-021-323-2253/c
                                                                                                                                                                                                                                                                                  Sequence 60960, Application US/10357930
Publication No. US20040259086A1
GENERAL INFORMATION:
APPLICANT: Schlegel. Robert
APPLICANT: Endege, Wilson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                             145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATA 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGTTTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTA 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8.6%;
nilarity 50.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 60.4;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches 141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                             86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                 FOR
THERAPY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
APPLICANT: Fincher, Karen L.
APPLICANT: Ziegler, Todd E.
TITLE OF INVENTION: Nucleic Acid Molecules and Oth
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(52274)B
CURRENT APPLICATION NUMBER: US/10/021,323
CURRENT APPLICATION NUMBER: 2001-12-12
PRIOR APPLICATION NUMBER: US 60/255, 619
PRIOR FILING DATE: 2000-12-14
                                                                                                                                                                                                                                                                                 RESULT 11
US-10-021-323-1716
                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 δ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: n = US-10-357-930-60960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/211,314
PRIOR FILING DATE: 2000-06-09
PRIOR APPLICATION NUMBER: 60/219,007
PRIOR FILING DATE: 2000-07-18
PRIOR APPLICATION NUMBER: 60/255,281
PRIOR FILING DATE: 2000-12-13
NUMBER OF SEQ ID NOS: 62232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: FastSEQ for Windows
SEQ ID NO 60960
LENGTH: 626
         NUMBER OF SEQ ID NOS:
SEQ ID NO 1716
LENGTH: 499
                                                                                                                                                                                                                                                Sequence 1716, Application US/10021323 Publication No. US20040123340A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature
LOCATION: 447, 451, 453, 4
LOCATION: 515, 529, 538, 5
LOCATION: 581, 582, 584, 5
LOCATION: 618
                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                 APPLICANT: Deikman, Jill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc_feature
LOCATION: 48, 49, 50, 117, 135, 136, 137, 166, 168, 189, 194, 197,
LOCATION: 227, 251, 253, 277, 278, 279, 281, 291, 323, 324, 327, 328,
LOCATION: 329, 331, 336, 337, 338, 339, 371, 372, 376, 377, 379, 381,
LOCATION: 382, 394, 403, 404, 405, 406, 408, 413, 429, 431, 437
OTHER_INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
DNA
                                                                                                                                                                                                                                                                                                                                                                                                           150
                                                                                                                                                                                                                                                                                                                                                                                                                                        438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              134;
                                                                                                                                                                                                                                                                                                                                              90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGGGTGTAATTAAGTTT
                                                                                                                                                                                                                                                                                                                                                                            AACAAAAAATTAGTGGAAAAGGTAACTGGAAAGAAAA 536
                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATAAATATAGAAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Feng, Paul C.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       455, 456,
540, 541,
585, 589,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 60.2; DB 21;
Pred. No. 0.14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461,
542,
592,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          469,
545,
598,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          484,
558,
599,
                                                                                                                                                        Other Molecules Associated With
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487,
559,
601,
                                                                                                                                                                                                                                                                                                                                                  52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          493,
561,
606,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          499,
564,
609,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          509,
565,
617,
                                                                                                                                                                                                                                                                                                                                                                                                                                           497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                            91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271
```

```
; OTHER INFORMATION: Clone ID: LIB3825-005-Q1-N6-D10 US-10-021-323-1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-10-473-126-240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                        8
                                                                                                     밁
                                                                                                                           Ş
                                                                                                                                                                             Ś
                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                               , OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-473-126-240
                        Ś
                                                 밁
                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/473,126
CURRENT FILING DATE: 2003-09-26
NUMBER OF SEQ ID NOS: 1258
SEQ ID NO 240
SEQ ID NO 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 240, Application US/10473126
Publication No. US20040234973A1
GENERAL INFORMATION:
APPLICANT: Bpigenomics AG
TITLE OF INVENTION: Methods and nucleic acids for the analysis of
TITLE OF INVENTION: proliferative disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Gossypium hirsutum FEATURE:
                                                                                                                                                                                                                                                                                                                                                                LENGTH: 8056
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                           2109
                                                                                                     2229
                                                                                                                                                         2169
                                                                            191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71
                                                                                                                                                                                                                            11 ATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAAGTTAGATGAGAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTGTAGACGAGTGGTCCATATATAGATGGTGAAATGAAATGAATATTGAGTAATAAATA 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAGTACTTGTTTTTTTTTGGGTTCAACTAGTTACTTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTAATTAAGTTTTATGAAATGTGGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                         TTTAAATTTTTTATTATAAAATAATTTTTTGCATGAAATTGTTTTTAAGATAAATTTTG 130
                                                                                                                                                                                                           GGCTTGGCAAGATTCCATAAGTTTATTTCACCAAAAAGGAAAGA 588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTAATAATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAAT 310
                                                    ACCTCGTAAAGTTTTGGTCTTACCCAACCCAATACCCACAAAGGTAAACGACCATACCGG
                                                                                                                               ACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGTCTTTAA 190
                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                        8.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8.5%;
                                                                                                                                                                                                                                                           ; Score 59.4; Di
; Pred. No. 0.46
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches 140; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 60; DB 20
Pred. No. 0.14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 20;
                                                                                                                                                                                                                                                                            .46;
                                                                                                                                                                                                                                                                                      DB 21;
                                                                                                                                                                                                                                                               336;
                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                        Length 8056
                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hematopoietic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             424
                                                                                                          2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                250
     2408
                                                       2348
                                                                                                                                                                                                                                         70
```

```
RESULT 13
US-10-723-860-7676/c
Sequence 7676, Application US/10723860
Publication No. US20040253606A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Azii, Natasha
APPLICANT: Ginsburg, Wendy M.
APPLICANT: Ziotnik, Albert
TITLE OF INVENTION: Methods of Diagnosis of Soft Tissue Sarcoma, Compositions of Interest of Invention of Invention of Screening for Soft Tissue Sarcoma Modulators
FILE REFERENCE: 05802.0193.NPUS01
CURRENT APPLICATION NUMBER: US/10/723,860
CURRENT FILING DATE: 2003-11-26
PRIOR APPLICATION NUMBER: 60/429,739
PRIOR PRILING DATE: 2002-11-26
NUMBER OF SEQ ID NOS: 8393
SOFTWARE: PatentIn version 3.2
LENGTH: 6816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                             FEATURE:
NAME/KEY: misc_feature
NAME/KEY: misc_feature
(6223)..(623
                                                                          NAME/KEY: misc feature
LOCATION: (6215)..(6221)
OTHER INFORMATION: n is a,
                                                                                                                              NAME/KEY: misc feature LOCATION: (6209)...(6209) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                              NAME/KEY: misc_feature
LOCATION: (6189)..(6189)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                   NAME/KEY: misc feature LOCATION: (3223)..(3247) OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature LOCATION: (1919)...(1989) OTHER INFORMATION: n is
                           OTHER INFORMATION: n is
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTTTTAAA 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACGAGTGGTCCATATATAGATGGTGAAATGAATGAATATTGAGTAATAAATAAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTTTAA 2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIGITITITCTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTA
                                       .. (6230)
                                                                                                                                þ
                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                        ğ
                           à
                         ú
                                                                             ņ
                                                                                                                              ņ
                                                                                                                                                                                 ņ
                                                                                                                                                                                                                                     ņ
                                                                                                                                                                                                                                                                                       ņ
                         á
                                                                             ú
                                                                                                                              á
                                                                                                                                                                                                                                   Ġ
                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                     Ď
                           or
                                                                             ö
                                                                                                                                                                                    õ
                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                        ç
                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     370
```

```
FEATURE: NAME/KEY:
                              FEATURE: misc feature LOCATION: (6388)..(6388) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
LOCATION: (6291)..(6300)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature LOCATION: (6351)..(6351) oTHER INFORMATION: n is
                                                                                                                                                              NAME/KEY: misc_feature
LOCATION: (6341)..(6342)
OTHER INFORMATION: n is
                                                                                                                                                                                                NAME/KEY: misc feature
LOCATION: (6338)..(6339)
OTHER INFORMATION: n is
FEATURE:
                                                                                                                                                                                                                                                 FEATURE: misc_feature
NAME/KEY: misc_feature
LOCATION: (6324)..(6327)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: misc_feature
LOCATION: (6322)..(6322)
OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc feature LOCATION: (6307)..(6307) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc feature LOCATION: (6305)..(6305) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
LOCATION: (6276)..(6276)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
LOCATION: (6248)..(6248)
OTHER INFORMATION: n is
                                                                         LOCATION: (6386)..(6386)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
LOCATION: (6278)..(6281)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc_feature
LOCATION: (6254)..(6258)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: misc feature LOCATION: (6241)..(6244) OTHER INFORMATION: n is
                                                                                                 NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (6261)..(6261)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (6250)..(6250)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION: (6234)..(6239)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc_feature
LOCATION: (6261)..(626
misc_feature
(6413)..(6414)
                                                                                      misc_feature
(6386)..(638
                                                                        a,
                                                                                                                                                                                                                                                   a
'
                                  D)
                                                                                                                     a
                                                                                                                                                               ā
                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                          a
a
                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                               Ċ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                ç
                                                                          O
                                                                                                                     ú
                                                                                                                                                              ú
                                                                                                                                                                                                         Ó
                                                                                                                                                                                                                                                   û
                                                                                                                                                                                                                                                                                              ņ
                                                                                                                                                                                                                                                                                                                                       ņ
                                                                                                                                                                                                                                                                                                                                                                                  ú
                                                                                                                                                                                                                                                                                                                                                                                                                             ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ņ
                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                          á
                                                                                                                   á
                                                                                                                                                              á
                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                              Ó
                                                                                                                                                                                                                                                                                                                                       Ō
                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                  유
                                                                           õ
                                                                                                                     õ
                                                                                                                                                               Or,
                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                ç
                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
Or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                                                    rt
```

```
NAME/KEY: misc feature LOCATION: (6470)...(6470) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc feature
LOCATION: (6465)..(6465)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature LOCATION: (6438)..(6438) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
LOCATION: (6434)..(6435)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: misc feature LOCATION: (6418)..(6418) orther INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: n is FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc_feature
LOCATION: (6463)..(6463)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (6416)..(6416)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: misc_feature
LOCATION: (6416)..(641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (6483)..(6483) OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature
LOCATION: (6483)..(648
                                            NAME/KEY: misc feature LOCATION: (6642)..(6642) OTHER INFORMATION: n is
                                                                                                                                     NAME/KEY: misc feature LOCATION: (6607)..(6607) OTHER INFORMATION: n is
                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: (6562)..(6563)
OTHER INFORMATION: n is
                                                                                                                                                                                                                              NAME/KEY: misc feature
LOCATION: (6557) . (6557)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                             NAME/KEY: misc_feature
LOCATION: (6534)..(6536)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc_feature
LOCATION: (6517)..(6517)
OTHER INFORMATION: n is a,
          NAME/KEY: misc_feature
LOCATION: (6644)..(6646)
                                                                               OTHER INFORMATION: n is FEATURE:
                                                                                                     NAME/KEY: misc_feature
LOCATION: (6619)..(6620)
                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: n is a,
                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (6494)..(649
                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc_feature
LOCATION: (6485)..(648
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                  .. (6494)
                                                                                                                                                                                                                                                                                                                                                                                                                                 .. (6485)
                                                                                                                                                                                                                                                                                                                                                                                                                      a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                         a
                                                                                                                                                                                                                                  a,
                                                                                                                                                                                                                                                                               a,
 D)
                                                                                           a
                                                                                                                                                                                     a
                                             a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ú
                                                                                                                                                                                                                                                                                                                                                                                                                     ú
 ņ
                                             'n
                                                                                          ņ
                                                                                                                                      ç
                                                                                                                                                                                    ū
                                                                                                                                                                                                                                  ú
                                                                                                                                                                                                                                                                              ú
                                                                                                                                                                                                                                                                                                                           ç
                                                                                                                                                                                                                                                                                                                                                                        ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                  ά
                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                        φ
                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                      á
                                                                                                                                                                                                                                                                             á
 ā
                                            á
                                                                                          á
                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 얶
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                             ç
                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                               ö
  õ
                                              or
                                                                                           õ
                                                                                                                                         유
                                                                                                                                                                                                                                  မ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ct
                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rt
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
US-10-706-635-24
                                                      ; ORGANISM: Amsacta
US-10-706-635-24
                                                                                                                                                 CURRENT FILING DATE: 2003-11-12
PRIOR APPLICATION NUMBER: 09/086,651
PRIOR FILING DATE: 1998-05-29
PRIOR APPLICATION NUMBER: 09/662,254
PRIOR FILING DATE: 2000-09-14
PRIOR APPLICATION NUMBER: 69/224,479
PRIOR FILING DATE: 2000-08-10
NUMBER FILING DATE: 2000-08-10
                                                                                                                                                                                                                                                                                                                                         Sequence 24, Application US/10706635
Publication No. US20050014263A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
Query Match
Best Local Similarity
Matches 138; Conserv
                                                                                                 SEQ ID NO 24
LENGTH: 50000
                                                                                                                                                                                                                                         APPLICANT: L1, Y1
TITLE OF INVENTION: Materials and Methods
TITLE OF INVENTION: Vertebrate Cells
FILE REFERENCE: UF-221C1XCZ1
CURRENT APPLICATION UNMBER: US/10/706,635
CURRENT FILING DATE: 2003-11-12
                                                                                                                                                                                                                                                                                                                APPLICANT: Moyer, Richard W. APPLICANT: Li, Yi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn version 3.1
                                                                                                                                           NUMBER OF SEQ ID NOS: 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc_feature
LOCATION: (6660)..(6660)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LOCATION: (6663)..(6663)
OTHER INFORMATION: n is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                     TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6418 NTNANNTAAAAATTTTTTTTTTAAATAAANTNTTTTTÄTÄAAAAATATTTTTTT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125 ATTTTGACATAACCAAGTATTATTTTCCGCCACGAATTGAGTCTACGAGAGATGTCCTGT 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65 AGTTTTTTAAATTTTTTTATTATAAAATAATTTTTTTGCATGAAATTGTTTTTAAGATAAA 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TACCGGTTAATATATTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTTAAATTTGGGAAAATTTAATAATATATGTATTAAATGGCAAATAAAGTTAGATGAG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAGTACTTGTTTTTTTTGGGTTCAACTAGTTACTTTTTTCCTTTGACATCAAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTAATTAAGTTTTATGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTT 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                        moorei entomopoxvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8.4%;
                8.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ú
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 59.2; DB 21; Pred. No. 0.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                Score 59.2;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                   0.94;
                                                                                                                                                                                                                                                                                                       for Delivery and Expression
                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 6816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                Length 50000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12;
                                                                                                                                                                                                                                                                                                          of Heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6474
                                                                                                                                                                                                                                                                                                                                                                                                                                                    6246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
```

Conservative

0

Mismatches

113;

Indels

<u>ب</u>

Gaps

1;

```
Search completed: November 17, 2005, 18:03:54 Job time : 855 secs
                                                                                                         S
                                                                                                                                                 밁
                                                                                                                                                                           δ
                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                     ઇ
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                       ર્
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Clone ID: LIB3829-024-Q6-N6-E4 US-10-021-323-16830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-021-323-16830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Deikman, Jill
APPLICANT: Feng, Paul C.C.
APPLICANT: Feng, Faul C.C.
APPLICANT: Fincher, Karen L.
APPLICANT: 2iegler, Todd E.
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21(52274)B
CURRENT FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: US 60/255, 619
PRIOR APPLICATION NUMBER: US 60/255, 619
PRIOR FILING DATE: 2000-12-14
NUMBER OF SEQ ID NOS: 17880
SEQ ID NO 16830
LENGTH: 469
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match

8.4%; Score 59; DB 20; Length 469;
Best Local Similarity 51.3%; Pred. No. 0.21;
Matches 137; Conservative 0; Mismatches 130; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 16830, Application US/10021323 Publication No. US20040123340A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Gossypium hirsutum
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49334 CTAAATATATTA 49345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49215 AAATTTTATTAAATATATAATATTGTTTAAATTTAAATCAATTATATTTTTAACATGCGA 49274
                                                                                                                                                                                                                                               390 TCAACTAGTTACTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGGTCCATATATA 449
                                                                         251
                                                                                                                                               191 АРАРА-АЛАРАРА-АЛАРАРАРАТТТТАРТАНДАРАЛДАЛДАЙЙЛДАДДАЙЙЙДДДДД 250
                                                                                                                                                                             330 TTATTTTGTAGGTCACGTGAAATTTATTATTTATTTAGTACTTGTTTTTTTCGGT 389
                                                                                                                                                                                                                                                                                                                                                                                               270 TTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTATGAAATGTGG 329
                                                                                                                                                                                                                                                                                                 71
                                                                                                                                                                                                                                                                                                                                                                           Ľ
                                                                                                                                                                                                                                                                                           TTTAAAAAAAAAAAAAAAAAAAAA 277
                                                                                                          TAGTGGAAAAGGTAACTGGAAAGAAAA 536
                                                                                                                                                                                                                                                                                                                                                                     TTTTTTGGGTTCÅACTAGTTACTTTTTTCCTTTGACATCAAAATTATTGTAGACGAGTGG 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATATTTTTTAATTTCTATTATAAGATATTTTTATTATTATTATTTTTGCTATGTTATTATT 49214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAAAAAAATTA 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAATAAATATATGGTAATATTTTATTATA-GATTTTTCAATAAAATTATATATTGTT 49333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCTAACCGGTTTATAAGTTTACATAAATCATTTACTAATCCGCGTGTAATTAAGTTTTA 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAATGTGGTTATTTTGTAGGTCACGTGAAATTTATTAATTTTTTAGTACTTGTTTTTC 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                       190
```

This page Blank (Uspio)